FIVE-YEAR REVIEW OF THE BEVERLY AND KAMINURIAK CARIBOU PROTECTION MEASURES

Northwest Territories Renewable Resources
Wildlife Service
The Honourable Nellie Cournoyea, Minister

FIVE-YEAR REVIEW OF THE BEVERLY AND KAMINURIAK CARIBOU PROTECTION MEASURES

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YELLOWKNIFE, N.W.T.

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EXECUTIVE SUMMARY

In 1978 the Department of Indian Affairs and Northern Development (DIAND) introduced special operating conditions for land use permits on traditional ranges of the Beverly and Kaminuriak herds of barren-ground caribou (Rangifer tarandus groenlandicus). These Caribou Protection Measures were designed to prevent potentially harmful contact between caribou and land use activities in areas designated as calving grounds and post-calving areas, at designated water crossings, and along migration routes to calving grounds. Special operating conditions were applied in relation to protected areas during prescribed times in each of the 5 years that Caribou Protection Measures were in place.

In the first year land use permits for areas inside Caribou Protection Areas were withheld from 15 May to 31 July, but in the following year a land use permit holder was eligible to have his permit area released from controls if monitoring showed that caribou cows and calves were not in the area. The monitoring program was carried out by the Northwest Territories (N.W.T.) Wildlife Service. The caribou monitor conducted extensive surveys of both the Kaminuriak and Beverly caribou ranges in 1978 and 1979, but from 1980 to 1982 only land use sites were monitored to verify whether or not caribou were in the area.

Data from studies carried out by the N.W.T. Wildlife Service were combined with monitoring results to evaluate protection area boundaries, the timing of controls, and designated water crossings. We found that for the 5 years from 1978 - 1983 the

Beverly caribou used the northernmost part of the Beverly Caribou Protection Area during peaks of calving. During the same period, Kaminuriak caribou used the west-central part of the Kaminuriak Caribou Protection Area. Movement of female caribou and calves from calving grounds did not follow a definite pattern and discrete post-calving areas could not be identified. Water crossings were ranked according to frequency of use criteria.

The N.W.T. Wildlife Service conducted studies with respect to caribou behaviour, water crossings and bio-physical characteristics of calving grounds. Baseline data on the ecology and behaviour of caribou were collected during the 3 year research program and, in the final year, disturbances were staged to observe caribou behaviour in response to helicopter disturbance under controlled conditions.

Recommendations are given with respect to timing of protection measures, designated protection areas, monitoring, and general aspects of the Caribou Protection Measures.

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INTRODUCTION

The Caribou Protection Measures were implemented by the Department of Indian Affairs and Northern Development (DIAND) in 1978 to impose controls with respect to land use operations in places where, and at times when, barren-ground caribou (Rangifer tarandus groenlandicus) of the Beverly and Kaminuriak herds were believed most sensitive to disturbance. The main thrust of the measures is to prevent potentially harmful contact between land use activities and caribou. Contact is minimized by deferring land use operations that could interfere with caribou at prescribed times on their calving grounds, during post-calving movements and at designated water crossings. The approach taken is consistent with the general principle advanced by Cowan (1971) whereby optimum utilization of a habitat and optimum production from a population can only be realized in a known and predictable social and physical environment. Introduction of a wide variety of surprises may induce avoidance behaviour and excitability that lead to greater energy demands and inefficient use of habitat.

This review considers DIAND's deferral system and the work carried out by the Northwest Territories (N.W.T.) Wildlife Service during the 5 year term of the protection measures. DIAND funded four distinct but interrelated programs carried out by the N.W.T. Wildlife Service:

1) monitoring caribou movements and distribution
2) disturbance studies on calving grounds
3) water crossing studies
4) characteristics of calving grounds.

RELATIONSHIP BETWEEN CARIBOU MONITORING AND PROTECTION

Darby (1978) cited six main objectives for the monitoring program:

1) to monitor and map the movements and activities of the Beverly and Kaminuriak caribou herds during spring migration, the calving period (15 May - 30 June) and post-calving period (1 July - 31 July);

2) to determine caribou usage of water crossing sites, make a special study of the Kazan River crossing, and develop specific criteria for identification of "critical" water crossing sites;

3) to evaluate protection area boundaries of calving and post-calving in relation to actual positions of animals and identify specific habitats of importance within these areas;

4) to note and map human activities near caribou and advise Land Use Inspectors of any anticipated problems;

5) to make observations on the behavioural response of caribou to human activities, including activities related to mining exploration where encountered during monitoring surveys; and

6) to advise Land Use Inspectors or other DIAND personnel on caribou-related matters as needed.

In 1978 and 1979, DIAND supported a broad monitoring program to monitor all aspects of caribou activities in Keewatin and to evaluate protection area boundaries (Objectives 1-5). During those years, extensive aerial surveys were carried out and observers were stationed to monitor caribou using the Aberdeen Lake and Kazan River crossings (Darby 1978, 1980). General monitoring and mapping of caribou movements ceased to be the major objective of the monitoring program after 1979. Commencing in 1980, DIAND's funding was split between caribou monitoring and research. Some trade-offs were made in order to carry out these programs concurrently. As a result, extensive monitoring was

discontinued in favour of site specific monitoring to address concerns about disturbance of caribou cows and calves in the vicinity of land use sites.

Since 1980, the principal objective of monitoring has been to furnish DIAND with information respecting caribou distribution for the purpose of preventing potentially harmful contact between caribou and land use activities (Objective 6). The N.W.T. Wildlife Service undertook to meet this objective by stationing a caribou monitor in Baker Lake to respond to DIAND's information requirements[1]. The monitor's role was to make a reconnaissance of areas where land use activities were proposed in order to identify potential conflicts. DIAND used information gathered by the monitor to make decisions regarding the timing of land use activities in the protection areas.

Two levels of protection are provided under the Caribou Protection Measures (Appendix A). In designated Caribou Protection Areas (Fig. 1), land use operations were curtailed from 15 May to 31 July, unless it was shown that caribou cows and calves would not be affected by a proposed land use operation. Land use activities outside Caribou Protection Areas but adjacent to them could proceed without interruption if caribou cows and calves were not present in the vicinity of proposed operations.

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1 The caribou monitor was hired as a term employee of the N.W.T. Wildlife Service under an annual budget funded by DIAND. Monitoring costs per year were: 1978 - $90,000, 1980 - $50,000, 1981 - $60,000, and 1982 - $50,000.

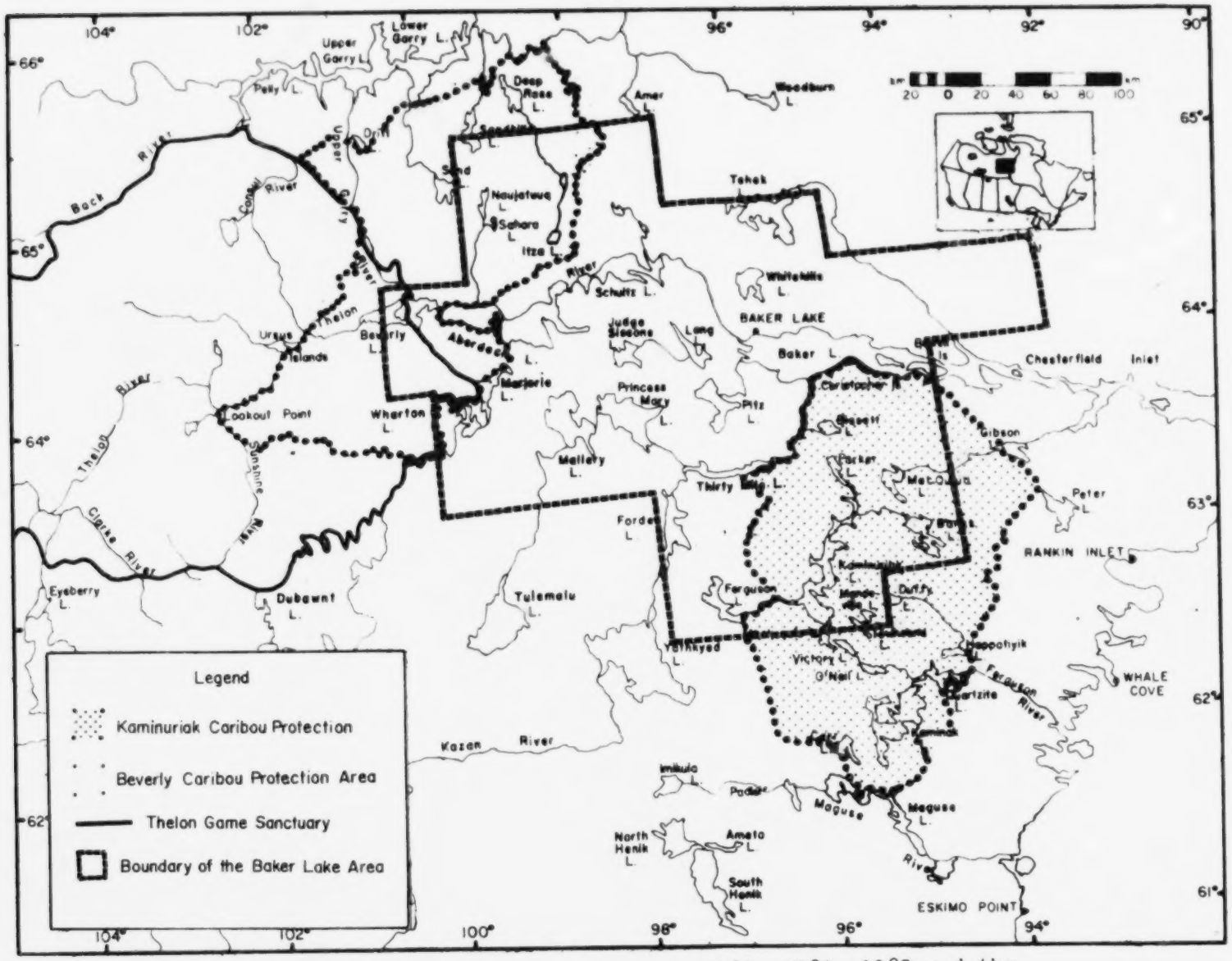

Figure 1. Caribou Protection Areas in 1980, 1981, 1982 and the Baker Lake area defined by Order-in-Council 1977-1153.

COMPLEMENTARY CARIBOU SURVEYS

The calving grounds of the Beverly and Kaminuriak caribou were surveyed prior to and during the monitoring program. Between 1957 and 1980, the location of the Beverly calving ground was documented for 11 years (Fleck and Gunn 1982). Fleck and Gunn (1982) also report 13 calving ground surveys for the Kaminuriak herd between 1966 and 1980. Stephenson et al. (in prep.) and Gates (in prep.) conducted calving ground surveys of the Beverly and Kaminuriak herds, respectively, in 1982.

Data from recent surveys, together with the earlier survey results, are used to evaluate the alignment of protection area boundaries and timing of controls.

TIME AND SPACE RELATIONSHIPS

Range use by barren-ground caribou in the Keewatin is characterized by seasonal movements that follow distinctive patterns in time and space. When Interdisciplinary Systems Ltd. (IDS) (1978) framed their recommendations for protective measures, they considered patterns of range use in the Baker Lake Area (Fig. 1) and temporal factors to identify four types of critical caribou areas: major migration corridors to calving grounds, calving grounds, areas where post-calving aggregations and movements occur, and important water crossings. In 1978, when Caribou Protection Areas were established by DIAND, the same types of areas were protected.

Land use controls, under which protection measures are implemented, are based on a prescription that recognizes the importance of the types of areas mentioned above. Since caribou occupy their range seasonally, and because disturbance is potentially more harmful at certain locations and times, as in the case of water crossings (Calef et al. 1976, Surrendi and DeBock 1976), DIAND's prescription contains specific reference to time and space.

Caribou Protection Maps prepared by DIAND and certified under the Territorial Land Use Regulations (Appendix B) depict the spatial aspects of the protection measures. The map for 1978 (Fig. 2) and 1979 showed primary calving and post-calving areas as discrete tracts with areas of overlap. A revised map, prepared in 1979 (Fig. 3), distinguished between traditional calving and post-calving areas (Area A) and potential calving and post-calving

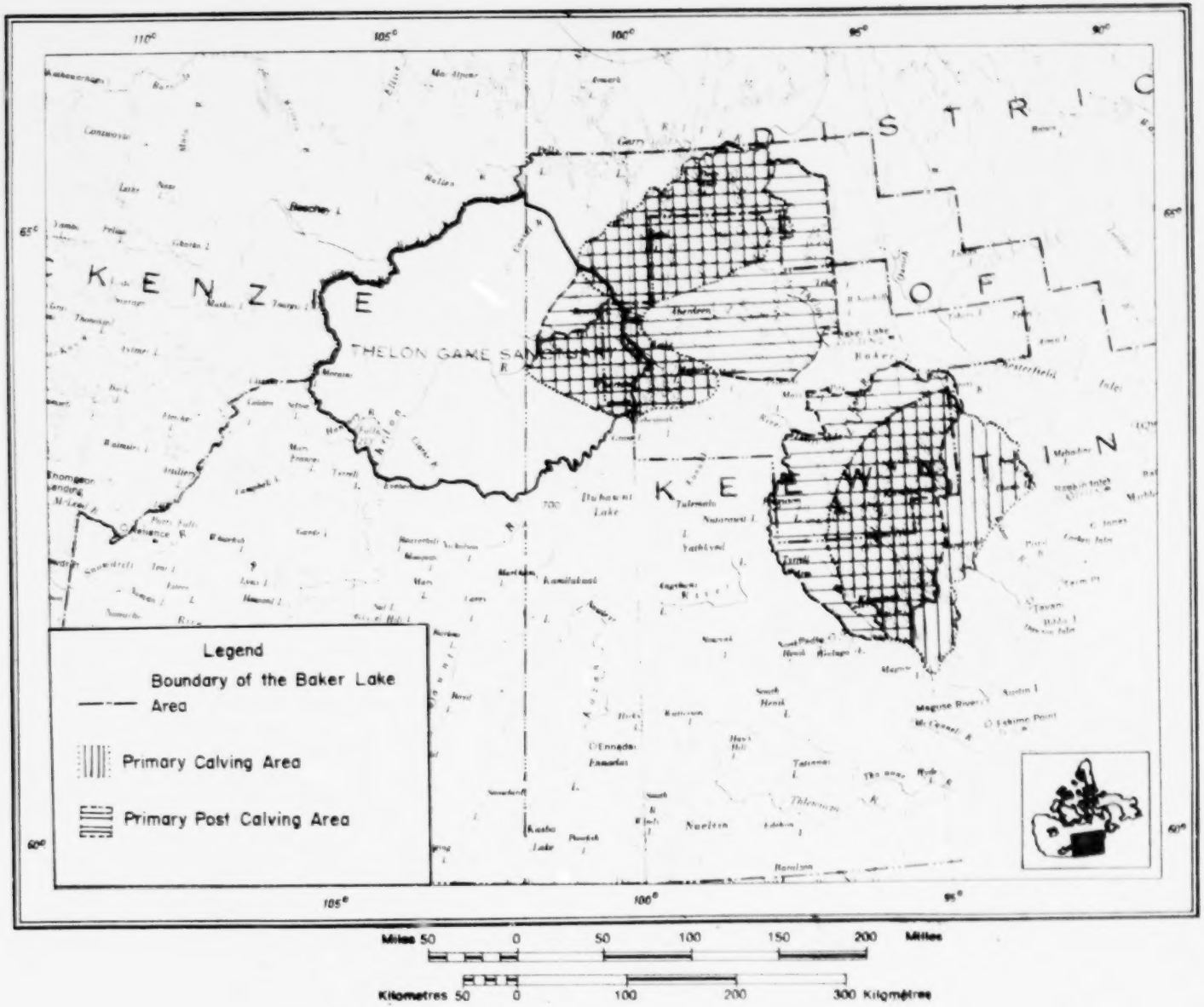
Legend
Boundary of the Baker Lake Area
Primary Calving Area
Primary Post Calving Area
Miles 50 0 50 100 150 200 Miles
Kilometres 50 0 100 200 300 Kilomètres

Figure 2. Caribou Protection Area map for 1978.

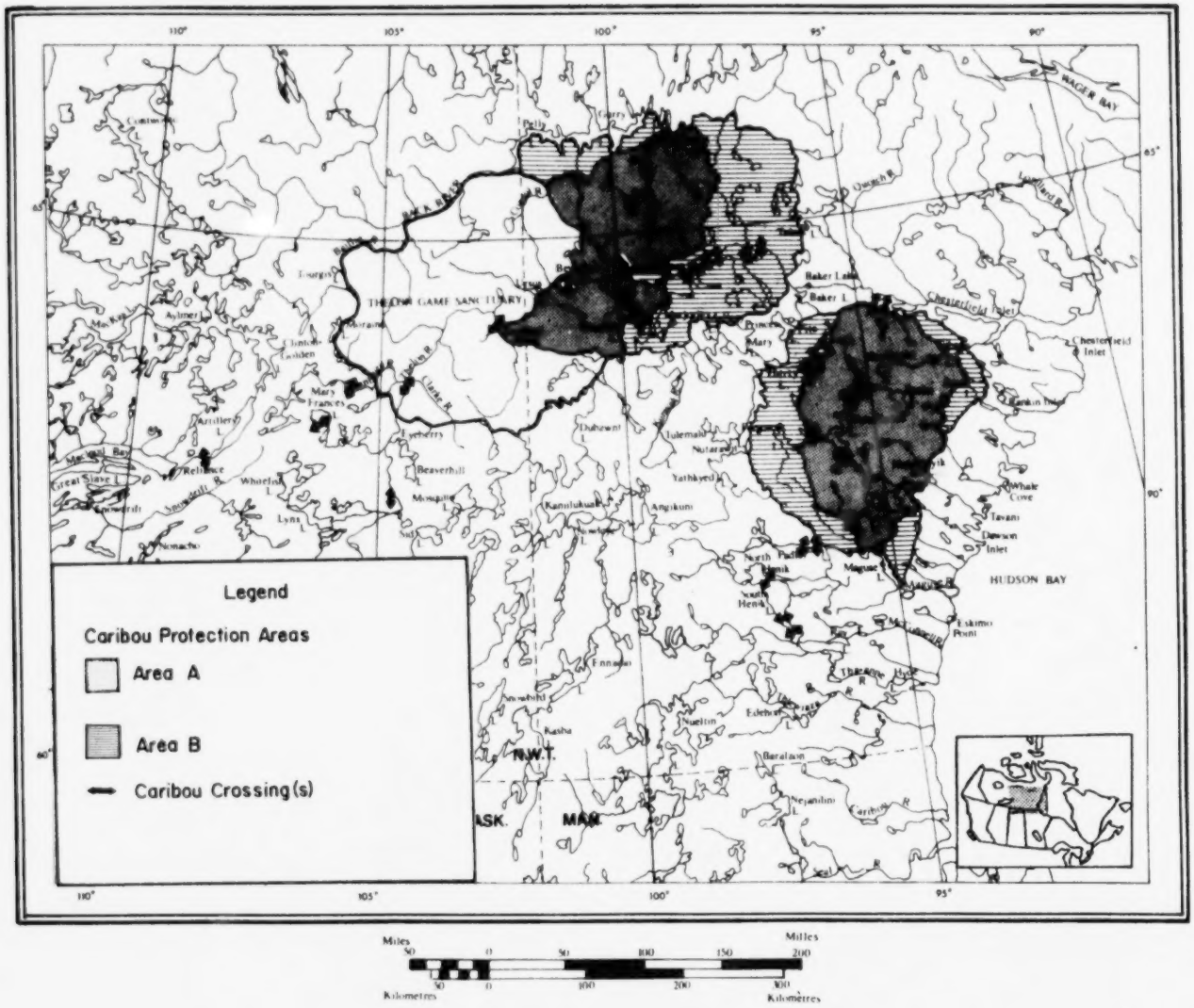

Figure 3. Caribou Protection Areas for 1979 and designated water crossings.

areas (Area B). In 1980, the Caribou Protection Map was amended by deleting the potential calving and post-calving areas.

Timing of Caribou Protection Measures is implemented through operating conditions to which land use permit holders are subject. These protection measures are scheduled to lapse when the potential for harmful contact has passed.

This example from Paragraph 1(a) in Appendix A will serve to illustrate how the elements of time and space are combined:

> The permittee shall not, without approval, conduct any activity between May 15 and July 31 within the Caribou Protection Areas ...

In the example, reference to Caribou Protection Areas signifies that conditions for harmful impacts are more likely to occur there than in other places.

Reference to caribou cows and calves in Paragraph 2(b) of Appendix A identifies the particular sex and age groups of caribou which are most susceptible to adverse interaction with land use activities. Controls designed in this way maximize the level of protection during times of high susceptibility to disturbance without undue restrictions on land use operations in the area.

A further dimension was added to this flexibility in 1979 by empowering land use inspectors to release areas from controls, even during the control period[1], if monitoring showed that caribou cows and calves were not present in the area of the proposed land use activity.

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1 The term "control period" refers to the times during which land use activities are regulated under the Caribou Protection Measures.

EVOLUTION OF CARIBOU PROTECTION MEASURES

Since 1977. the notion of protective measures found expression in three forms:

1. Order in Council P.C. 1977-1153

The Order (Appendix C) defined an area (Fig. 1), subsequently referred to as the Baker Lake Area. that was withdrawn from disposal under the Territorial Lands Act. This withdrawal precluded issuance of land use permits for the Baker Lake area from 28 April 1977 to 1 March 1978. The controls were imposed to halt increases in exploration activity while the effects of such activities on wildlife in the area were investigated. Results from studies carried out by IDS were released in February 1978 and the term of the Order was extended to 24 April 1978 while the IDS report was under review.

2. Court Order T-1628-78

Controls to regulate exploration activity in the Baker Lake Area were continued under the interim injunction (Appendix D) issued by the federal court of Canada on 24 April 1978. The injunction prescribed these conditions respecting prospecting permits and land use permits in the Baker Lake area:

(i) Permit holders were restrained from carrying on any activity under or over the surface of the ground within 4.8 kilometers of major water crossing sites.

(ii) Permit holders were restrained from carrying on any activity under or over the surface of the ground

within, or within a distance of 4.8 kilometers of, calving areas between 15 May and 30 June in any year.

(iii) Permit holders were restrained from carrying on any activity under or over the surface of the ground within, or within a distance of 4.8 kilometers of, post-calving areas between 1 July and 31 July in any year.

(iv) A saving provision was added to allow permit holders, who were restrained from operating, to do what was necessary to maintain the security of any camp or cache, but non-essential personnel were to be withdrawn during the prescribed period.

(v) Recording of claims under the Canada mining regulations within 4.8 kilometers of major crossing sites, calving areas and post-calving areas was forbidden.

(vi) Granting of leases within 4.8 kilometers of major crossing sites, calving areas and post-calving areas was forbidden.

The Order had an ameliorating effect in so far as it allowed exploration activity, formerly precluded by Order-In-Council, to proceed according to stated controls. Injunctive relief was dissolved on 15 November 1979 by Justice Mahoney in his judgement pertaining to Hamlet of Baker Lake et al. vs. the Minister of Indian Affairs and Northern Development (Mahoney 1979).

3. Terms and Conditions of Land Use Permits

Revisions of regulations under the Territorial Lands Act (Appendix E) assented to in November 1975 brought lands in the

eastern arctic under purview of the Territorial Land Use Regulations and required operators to obtain land use permits for work in the area. Further regulation changes on 3 March 1977 redefined territorial lands to include all lands in the Northwest Territories controlled and administered by DIAND. Under the new regulations. permits were required for all land use operations. except for minor ones that were expressly exempted from land use controls. These revisions laid the groundwork for implementation of special protection measures in relation to caribou/land use conflicts.

Subsection 31(1) of the regulations (Appendix B) authorizes a designated officer (engineer) of DIAND to include in any permit terms and conditions respecting, amongst other matters:

(i) the location and the area of territorial lands that may be used.

(ii) the times at which any work or undertaking may be carried out, and

(iii) the protection of wildlife and fisheries habitat.

The remedies for non-compliance with any term or condition are provided in Sections 41 and 42.

On 27 April 1978 the Minister of the Department of Indian Affairs and Northern Development announced new protective measures for the Baker Lake region to ensure protection of wildlife from possible adverse effects of land use activities (Faulkner. 1978). The proposed new measures included:

1. Establishment of a Land Management Zone, under the Territorial Lands Act, covering the critical-use areas of each of the Kaminuriak and Beverly Caribou herds north of 60°.

2. Implementation of special regulations for each Land Management Zone, incorporating the recommendations of the consultant study report of Interdisciplinary Systems Limited. The regulations will include restrictions on land use in areas critical to wildlife, when these areas are occupied by wildlife:
   - caribou spring migration routes (May 15 - June 30)
   - caribou calving grounds (May 15 - June 30)
   - caribou post-calving aggregation areas (June 30 - July 31).

   Land use activities within spring migration areas may be allowed, once the main portion of the herd has passed beyond the proposed site of activity, and on the advice of a wildlife biologist engaged in monitoring herd movements.

3. The withdrawal from further disposition of land adjacent to known river and lake caribou crossing sites.

4. Aerial surveys, in collaboration with the Government of the Northwest Territories, to monitor movements of the Kaminuriak and Beverly herds for the purpose of ensuring land use activities do not interfere with the herds, and to enable better definition of the boundaries of caribou critical-use areas.

5. Transport Canada air regulation requirements that all aircraft maintain an altitude of not less than 300 m above the caribou herds during migration and 600 m above water crossing points, calving grounds and post-calving aggregations. Directives to pilots are made through the regular civil aeronautics system. Transport Canada air radio operators at Baker Lake, and other airports used by aircraft flying over the herd ranges, will be informed of these flying restrictions, which will also be brought to public attention via the northern news media. In addition, all operators issued Land Use Permits under the Territorial Land Use Regulations will be informed of flying restrictions.

6. Proposals to the people of Baker Lake that they become actively involved in regulating land use in the new land Management Zones, through community meetings at which mining companies can explain their proposed activities, through participation in an Advisory Committee set up to assist the Department in regulating land use, and through participation, with government biologists, in caribou herd aerial surveys.

There are obvious parallels between items 2 and 3 of the proposed measures and the constraints prescribed for the Baker Lake Area in the interim injunction issued on 24 April 1978. The injunction and DIAND's protection measures were independent but complementary processes because, although the latter applied to a different area, the same level of protection was provided. The critical-use areas of Beverly and Kaminuriak caribou herds mentioned in item 1 and the water crossings referred to in item 3 were subsequently identified as protected areas on caribou protection maps prepared by DIAND in 1978 and revised in 1979 and 1980.

Land use controls proposed by DIAND in April 1978 (Appendix F) were implemented under subsection 31(1) of the Territorial Land Use Regulations as terms and conditions (Caribou Protection Measures) of land use permits. Since 1978, the terms and conditions have been reviewed in November of each year to recommend changes for the subsequent operating season. This review process has resulted in significant changes to the caribou protection measures and the monitoring program.

Protection area boundaries were revised in 1979 and in 1980. Caribou Protection Measures for 1979 (Appendix G) sought to protect caribou cows and calves within a definite area where post-calving aggregations were expected to occur. Post-calving movements proved to be less predictable than anticipated by the 1979 protection measures, so land use controls for 1980 (Appendix H) were revised to protect post-calving movements by means of a general provision that applied to any area occupied by caribou

cows and calves. Caribou Protection Area maps have not been revised since the deletion of area "B" in 1980 (Fig. 3). Critical times for calving and post-calving have remained unchanged since being adopted for controls in 1979. In 1980, the prohibition of any land use activities near designated water crossings from 15 May to 1 September was changed from 4.8 km to 5 km. The prohibition of camps and blasting within 10 km of a designated water crossing between 15 May and 1 September first appeared in the protection measures in 1980 (Appendix H) and has remained unchanged.

REVIEW OF MONITORING INFORMATION ON SEASONAL PATTERNS OF RANGE USE

Spring Migration

Beverly Herd

Migration routes used by Beverly and Kaminuriak barren-ground caribou to reach their respective calving grounds in each year since 1978 are shown in Figure 4. The figure shows that caribou of the Beverly herd have not markedly deviated from the route described in the 1978 monitoring report (Darby 1978).

Although the route has remained unchanged, there have been fluctuations in the timing of its use. Caribou cows ordinarily reach treeline during the first week in May (Kelsall 1968). In 1978, and again in 1980, caribou cows migrating toward the Beverly calving ground advanced beyond the treeline earlier than anticipated according to Kelsall's schedule (Darby 1978, Cooper 1981).

Darby (1980) reported that spring migration in 1979 did not reach treeline until about 11 May. Information about the timing of migration in 1981 and 1982 does not provide for comparison with observations from previous years.

Kaminuriak Herd

Figure 4 shows considerable variation in the spring migration routes taken by Kaminuriak barren-ground caribou during the term of the monitoring program. Information about late winter distribution and spring migration is more complete for 1978 and

1979 than for subsequent years. Darby (1978, 1980) included figures showing approximate late winter distribution in his reports. This level of detail was not attempted by monitors after 1979 and only generalized descriptions of migration routes are given.

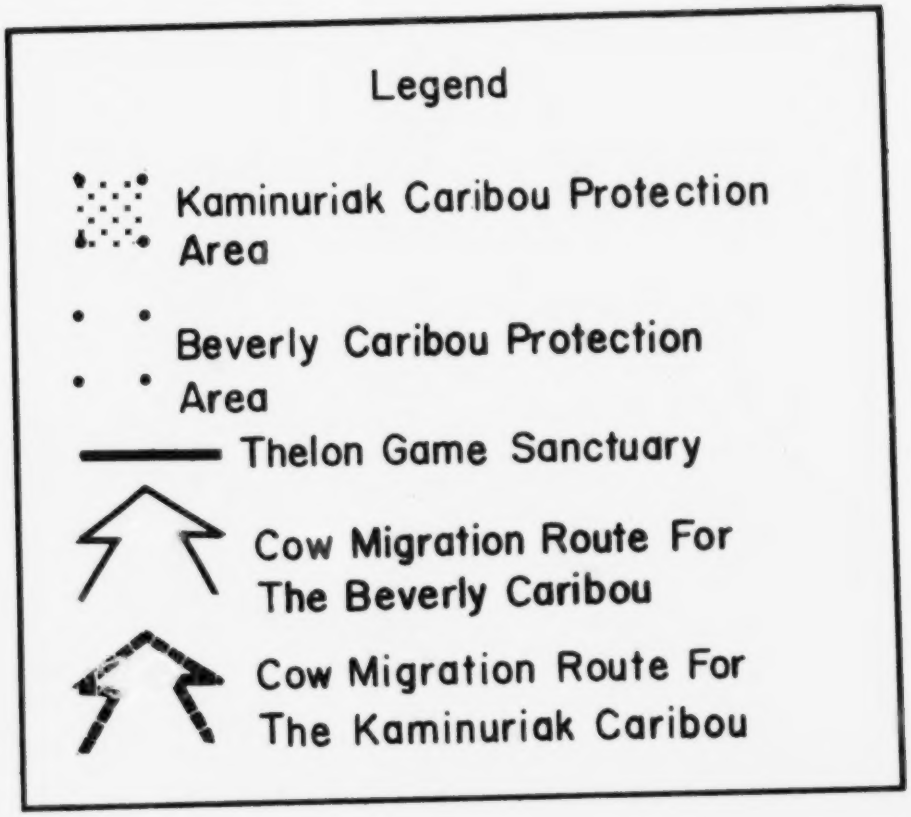
Spring migration to calving grounds from wintering areas north of Baker Lake and from the Mallery Lake area, was observed in March and April 1982 (Gates in prep.). Prior to 1982, spring movement to the calving grounds from a northwesterly direction had not been reported, although IDS (1978) mapped a wintering area that extends from Princess Mary Lake to Wharton Lake. In 1981 and 1982 the monitor reported southward movements of caribou cows across the ice of Baker Lake in the Christopher and Bowell Islands area (Clement 1982 and 1983). Westward spring movements from coastal wintering areas were reported for 4 years during the term of the program; the exception being 1980.

Calving Grounds

Figures 5 and 6 show calving grounds known to have been used by the Beverly and Kaminuriak herds from 1957 to 1977. Calving grounds used during the last 5 years (1978 to 1982) are shown in Figure 7.

Beverly Herd

Darby (1978) reported calving further to the northwest than previously observed. In Figure 7, it is shown that Beverly


Legend
Kaminuriak Caribou Protection Area
Beverly Caribou Protection Area
Thelon Game Sanctuary
Cow Migration Route For The Beverly Caribou
Cow Migration Route For The Kaminuriak Caribou

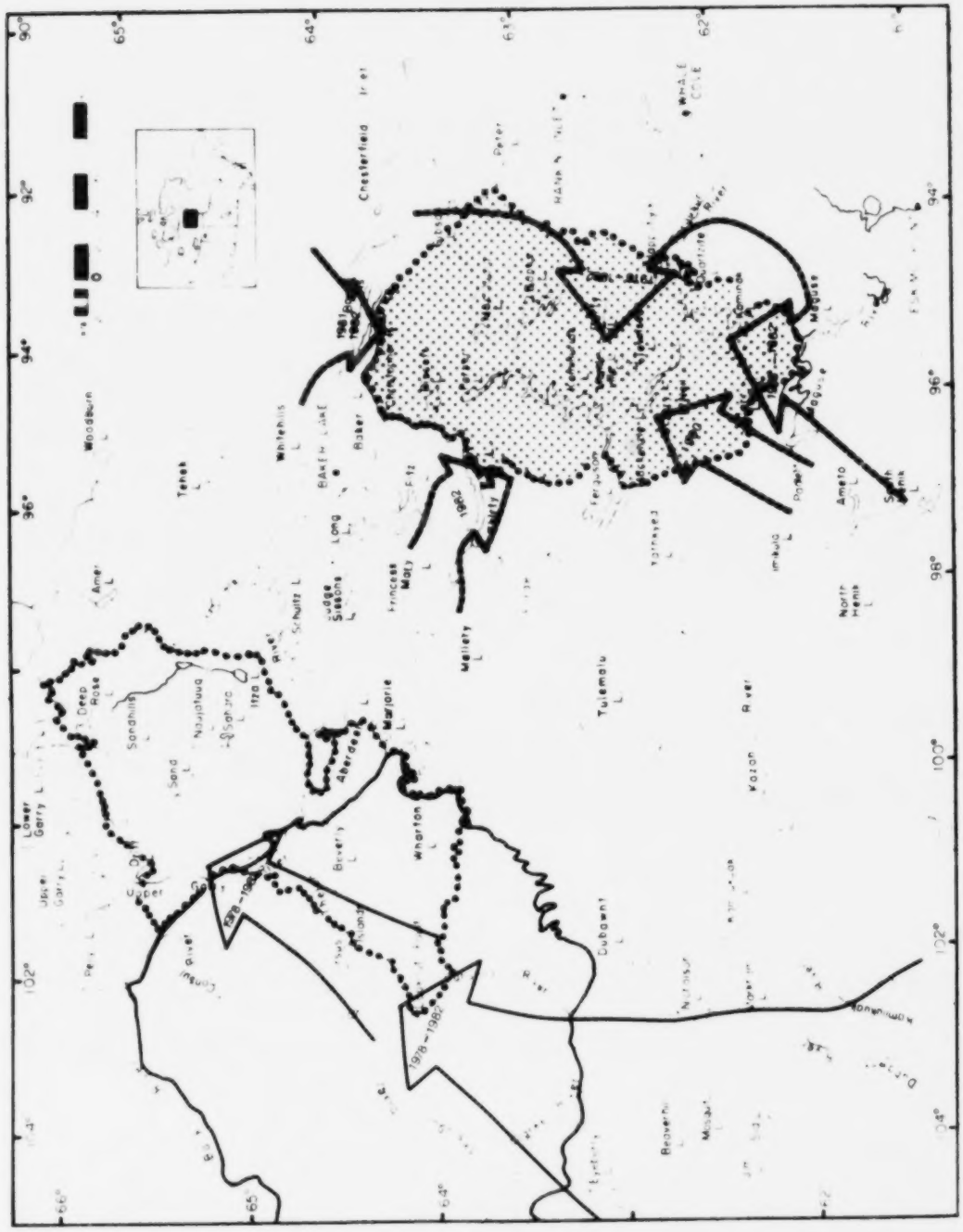
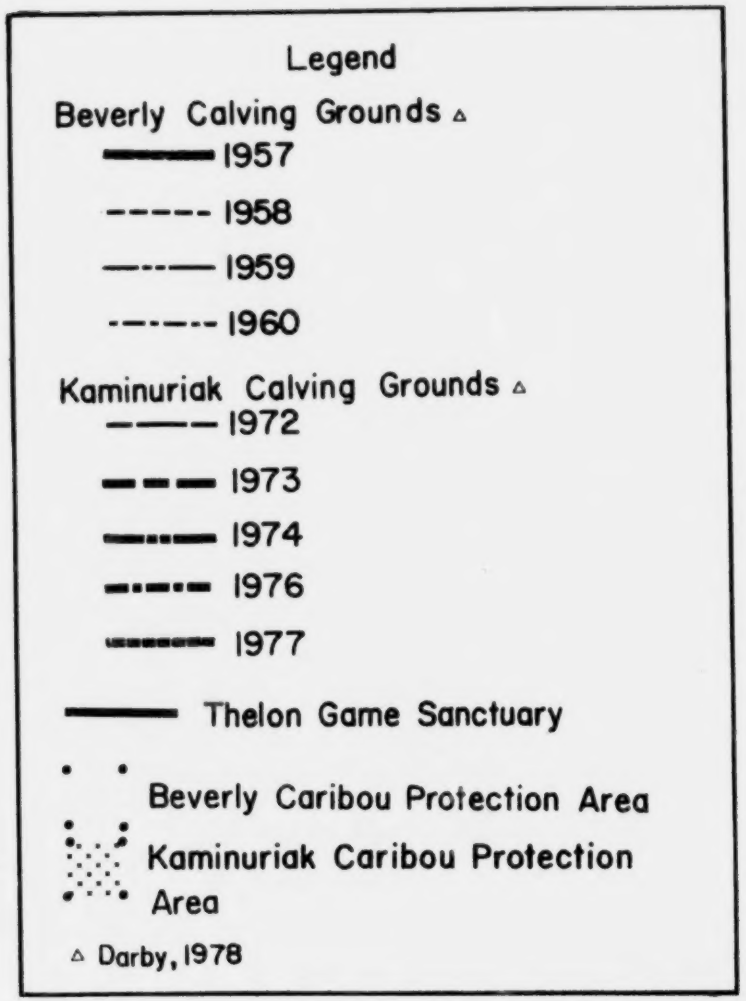


Figure 4. Beverly and Kaminuriak spring migration routes from 1978 to 1982.


Legend
Beverly Calving Grounds △
1957
1958
1959
1960
Kaminuriak Calving Grounds △
1972
1973
1974
1976
1977
Thelon Game Sanctuary
Beverly Caribou Protection Area
Kaminuriak Caribou Protection Area
△ Darby, 1978

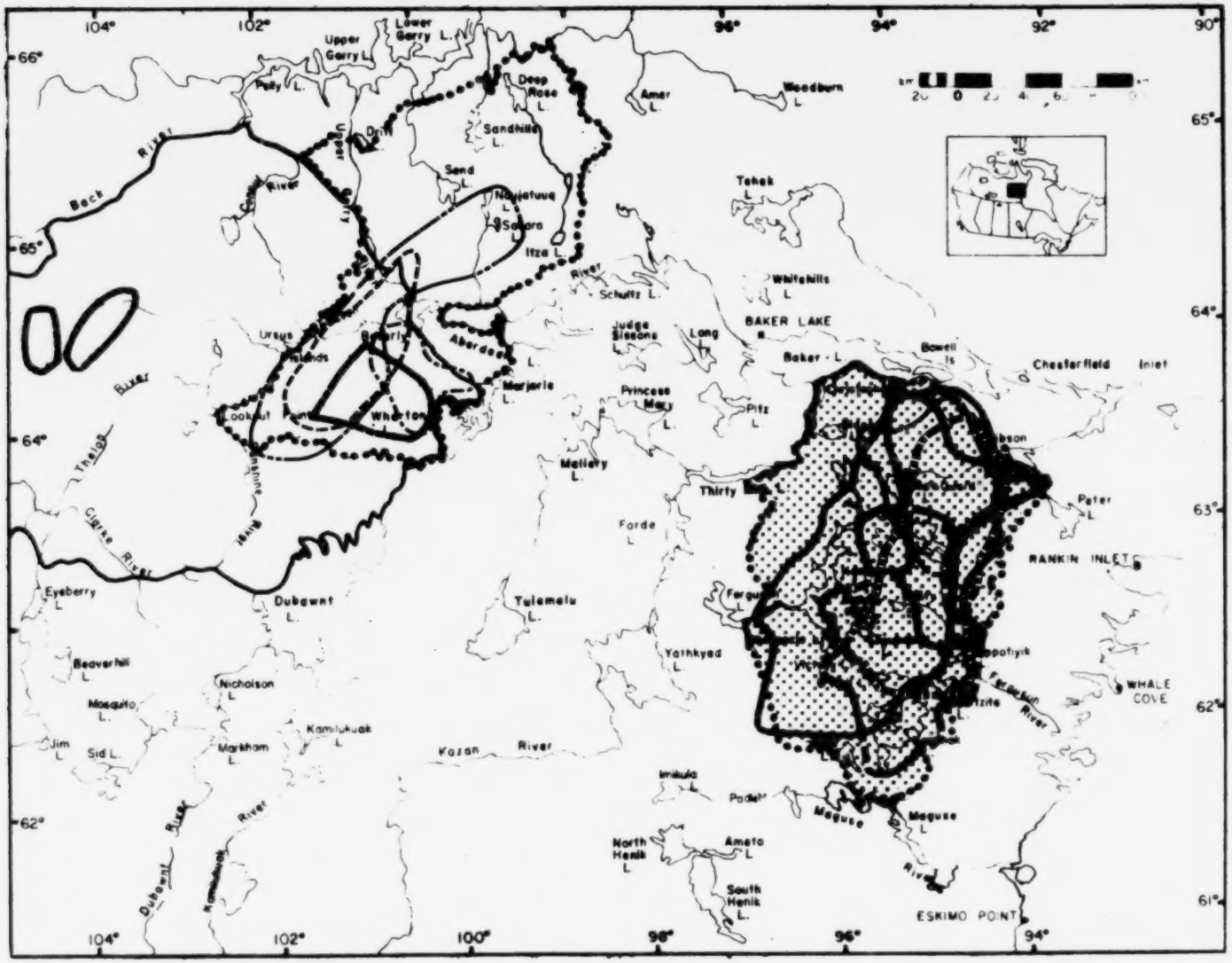
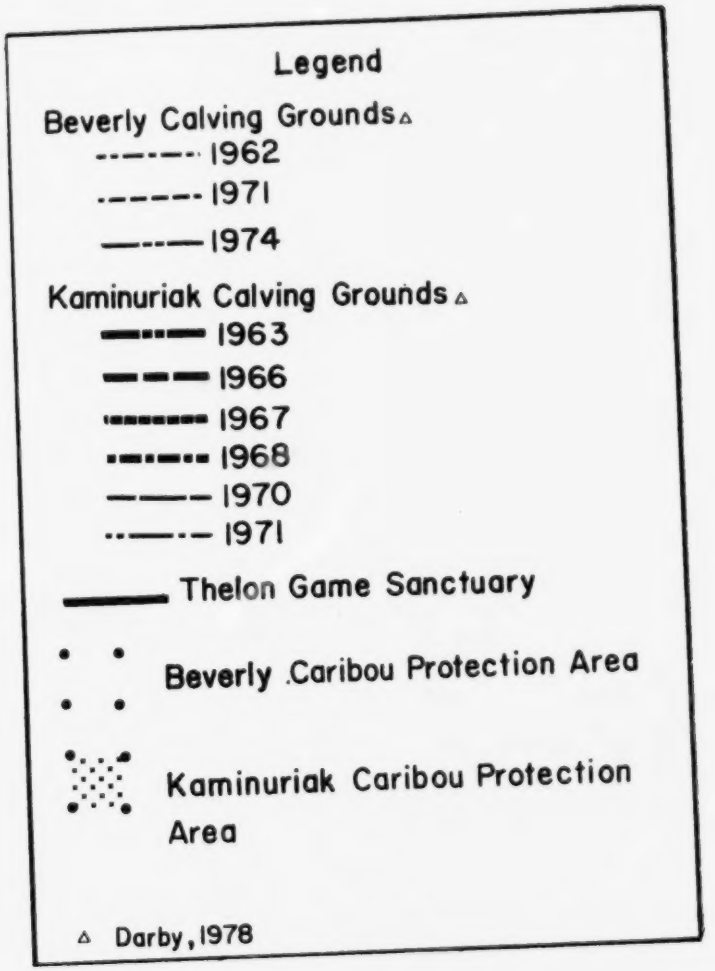


Figure 5. Beverly calving grounds for 4 years from 1957 to 1960 and Kaminuriak calving grounds for 5 years from 1972 to 1977.


Legend
Beverly Calving Grounds △
1962
1971
1974
Kaminuriak Calving Grounds △
1963
1966
1967
1968
1970
1971
Thelon Game Sanctuary
Beverly Caribou Protection Area
Kaminuriak Caribou Protection Area
△ Darby, 1978

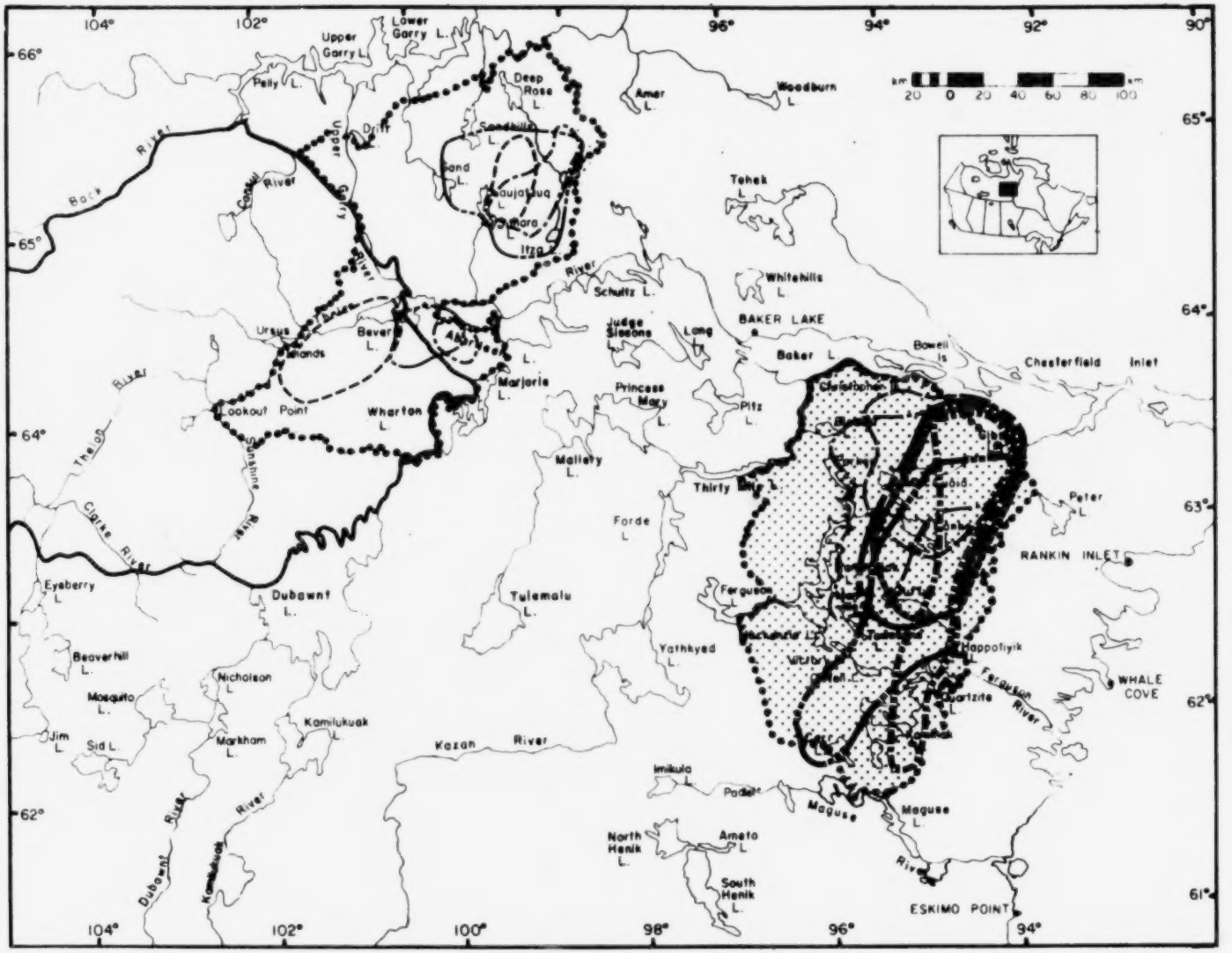
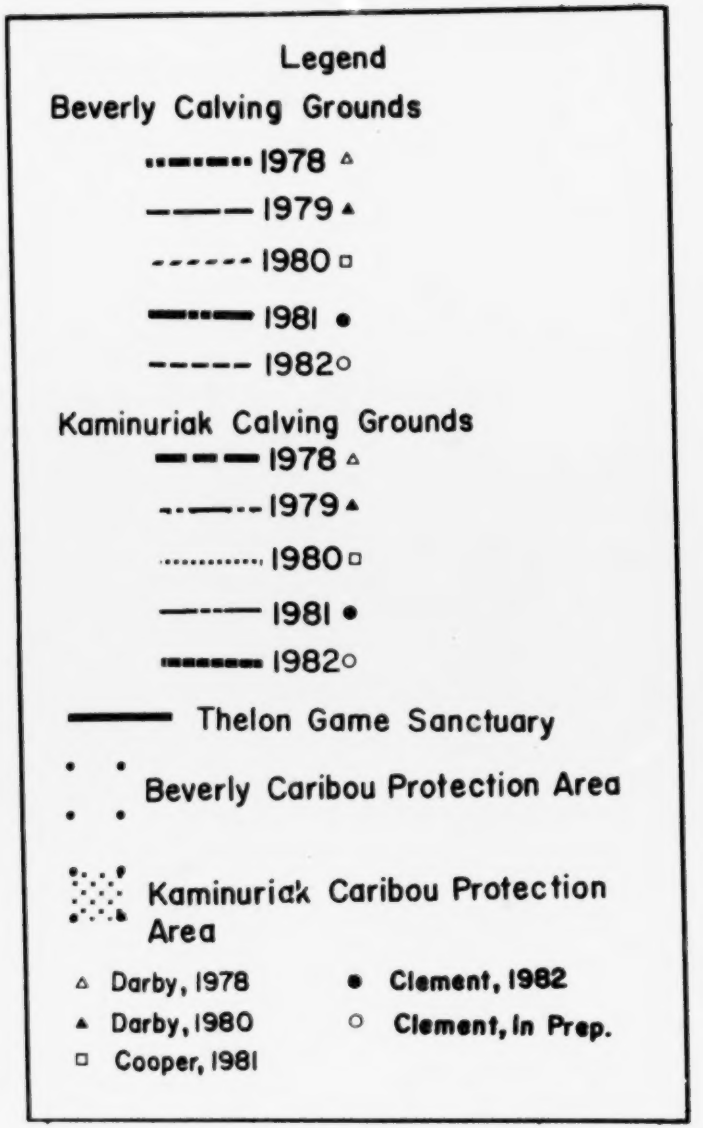


Figure 6. Beverly calving grounds for 3 years from 1962 to 1974 and Kaminuriak calving grounds for 5 years from 1963 to 1971.


Legend
Beverly Calving Grounds
1978 △
1979 ▲
1980 □
1981 ●
1982 ○
Kaminuriak Calving Grounds
1978 △
1979 ▲
1980 □
1981 ●
1982 ○
Thelon Game Sanctuary
Beverly Caribou Protection Area
Kaminuriak Caribou Protection Area
△ Darby, 1978
▲ Darby, 1980
□ Cooper, 1981
● Clement, 1982
○ Clement, In Prep.

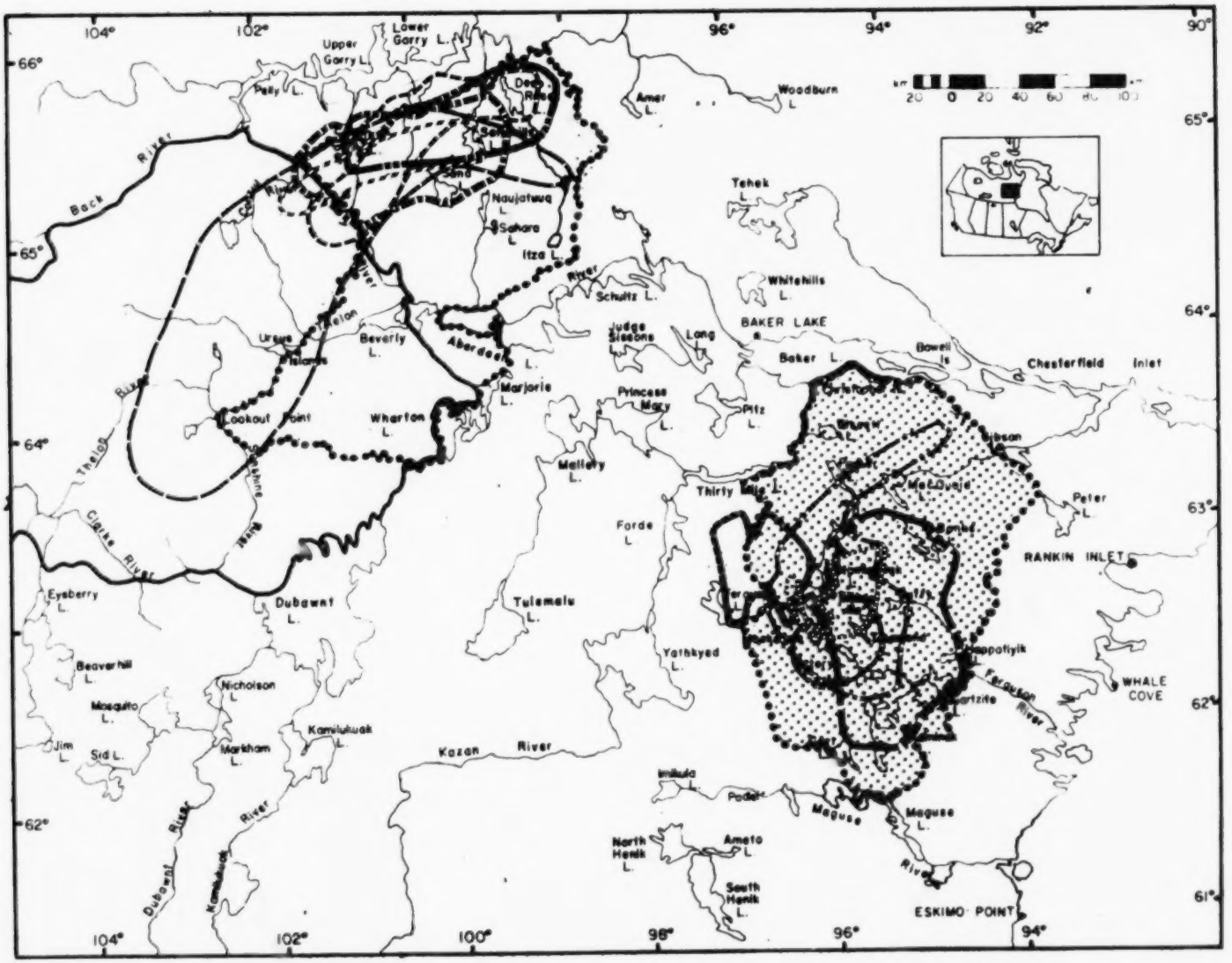


Figure 7. Beverly and Kaminuriak calving grounds from 1978 to 1982.

caribou have occupied calving grounds between Sand Lake and Upper Garry Lake in each of the 5 years during which monitoring was carried out. Calving occurred over a larger than usual area in 1979 but Darby (1980) found that most of the cows were located in the high density area between Sand Lake and Deep Rose Lake. The anomalous calving distribution in 1979 signifies calving enroute to the calving ground rather than an extension to the calving ground (Darby 1980).

The pattern that emerges from comparison of Figures 5 and 6 with Figure 7 is one in which there has been a marked change in calving grounds used by Beverly caribou since calving distributions were first documented in 1957. Since 1978, calving grounds within the Beverly protection area below 65° north latitude were used only once.

Kaminuriak Herd

Calving grounds used by Kaminuriak caribou since 1978 are shown in Figure 7. Comparison of Figure 7 with Figures 5 and 6 show these changes in Kaminuriak calving distribution since 1963:

1. With the exception of 1982, the calving ground in each year since 1978 was in the Kaminuriak Lake area, particularly to the east and southeast of the lake.
2. Calving grounds have been smaller since 1978. Whereas calving grounds north of Banks Lake were used in each of the 11 years between 1963 and 1977 for which Kaminuriak calving distributions were documented, calving north of Banks Lake occurred only once since 1978.

3. Calving west of Kaminuriak Lake was documented once between 1963 and 1977. Since 1978, calving grounds west of the lake were reported in 1979, 1980 and 1982.
4. The 1982 calving ground included an area outside the Kaminuriak protection area.

Timing of Calving

Most observations as to the timing of calving refer to an interval of several days during which parturition was observed. In some years, as in 1982, time of calving is expressed as "peak calving" or the date by which half of the calves are born. Thus, Stephenson et al. (in prep.) and Gates (in prep.) give 10 June and 3 June as peak calving dates for the Beverly and Kaminuriak herds, respectively.

During the term of the Caribou Protection Measures, the earliest date given for commencement of calving was 29 May (Clement 1982) and the latest date for peak of calving was 13 June (Gunn and Decker 1982). Except for 1979, calving on the Kaminuriak calving ground commenced and peaked earlier than on the Beverly calving ground (Table 1).

Post-calving

Designation of Post-calving Areas

In 1978 and 1979, Caribou Protection Areas were shown on DIAND's maps to include post-calving areas that were somewhat

Table 1. Calving intervals or peak-calving on Beverly and Kaminuriak calving grounds.

Year	Beverly herd	Kaminuriak herd
1982	9-13 June (Stephenson et al. in prep.)	3 June (Gates 1983)
1981	3-8 June (Clement 1982)	circa 29 May* (Clement 1982)
1980	circa 8 June (Gunn and Decker 1982)	
1979	3-9 June (Darby 1980)	5-10 June (Darby 1980)
1978	4-11 June (Darby 1978)	3-7 June (Darby 1978)

* peak period not determined

distinct from calving grounds (Figures 2 and 3). Darby (1978) delineated the protection area boundaries on the basis of reported occupation by caribou during the calving period. Areas where calving distribution had been observed were mapped and withdrawn from land use operations between 15 May and 30 June.

Peripheral areas where calving occurred infrequently and adjacent areas that were occupied by post-calving aggregations, were protected during a post-calving period that extended from 1 July to 31 July.

Results of monitoring in 1978 were evaluated and the 1979 protection area map (Fig. 3) no longer contained reference to calving and post-calving areas. The criteria for mapping protection areas remained essentially unchanged but calving grounds were referred to as "Area A" and post-calving areas were referred to as "Area B" (Darby 1980).

Comparison of Figures 2 and 3 identifies boundary changes that redefined the calving areas. Further revisions after monitoring in 1979 produced the present protection area map (Fig. 1) on which only the former calving areas (Area "A") are designated for protection during the entire (15 May to 31 July) control period.

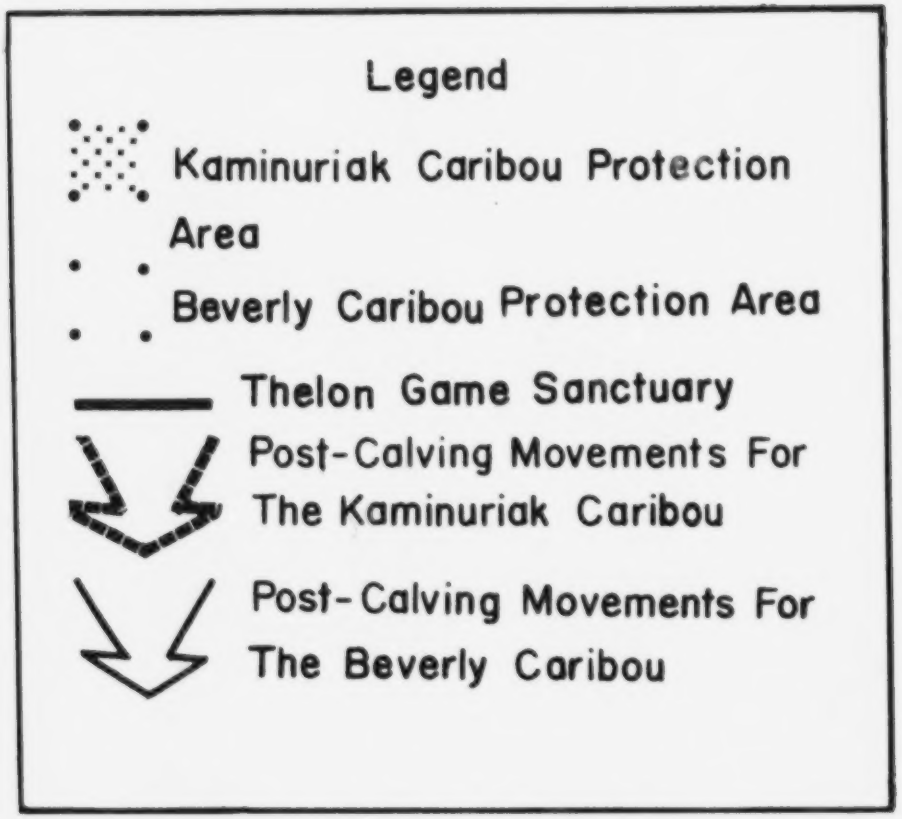
Under the current protection measures, land use operations outside the Caribou Protection Areas may be interrupted if calving or post-calving aggregations are present.

Beverly Herd

Dispersal of cows and calves from the Beverly calving ground was to the west and southwest in each year of the monitoring program (Fig. 8). The departure of major concentrations of cows and calves from the protection area was in early July. Clement (1983) reported that in 1982 most of the cows and calves had left by 12 July. Annual monitoring reports contain reference to sightings of groups of cows and calves within the protection area at various times in July and August, but reoccupation by concentrations approaching those observed during calving was not reported.

Kaminuriak Herd

Post-calving movements of the Kaminuriak herd are more variable than those of the Beverly herd (Fig. 8). Darby (1978, 1980) and Cooper (1981) are in agreement as to a general movement


Legend
Kaminuriak Caribou Protection Area
Beverly Caribou Protection Area
Thelon Game Sanctuary
Post-Calving Movements For The Kaminuriak Caribou
Post-Calving Movements For The Beverly Caribou

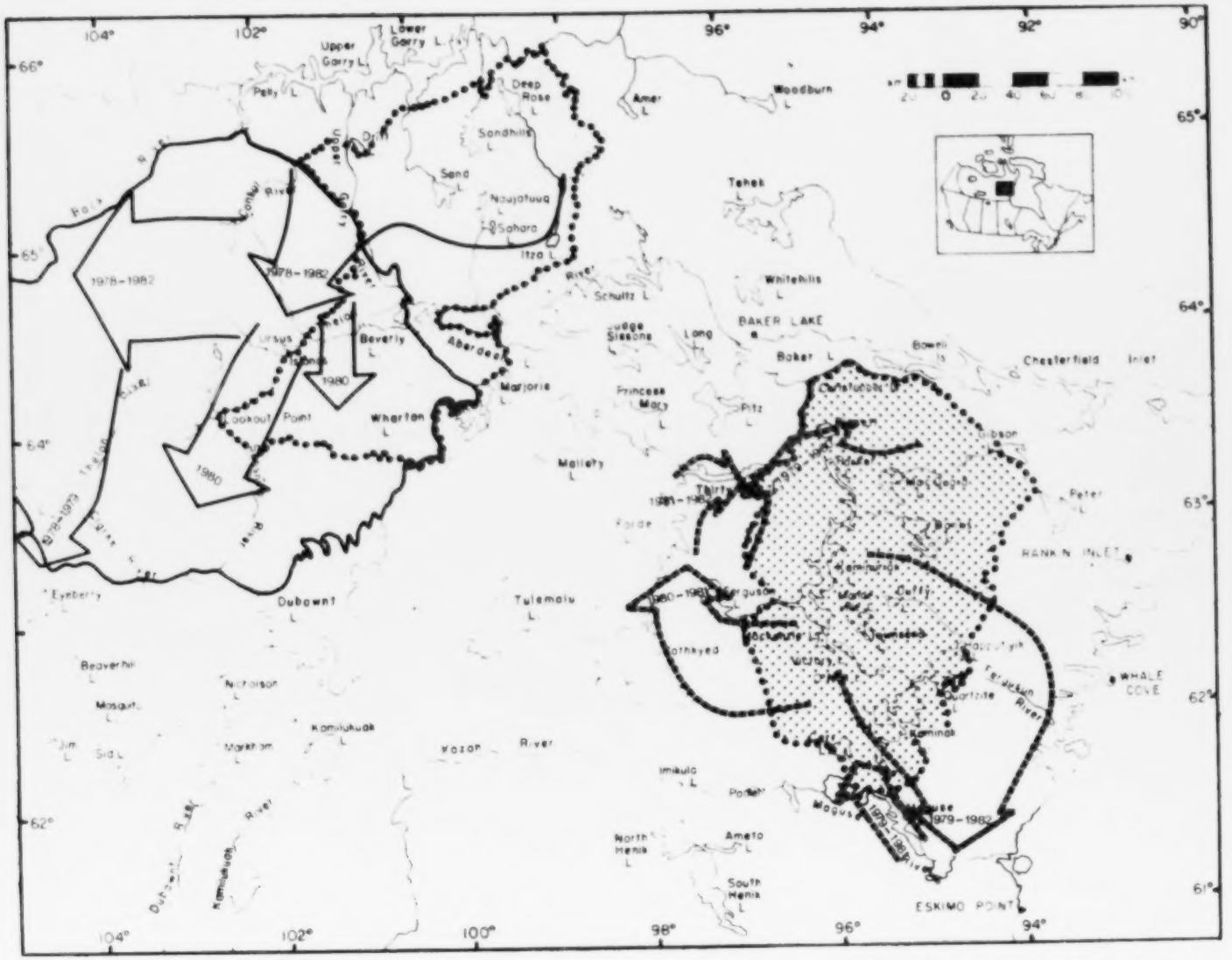


Figure 8. Beverly and Kaminuriak post-calving movements from 1978 to 1982.

of cows and calves toward the southeast in late June and early July in each of the first 3 years of the monitoring program. In 1978 and in 1979, post-calving distributions were reported within the protection area and in adjacent areas to the east and southeast (Darby 1978, 1980).

The path taken by cows and calves in 1980 describes a broad clockwise arc that contacts the Hudson Bay coast in the vicinity of Eskimo Point by the end of June. Monitoring in July showed that post-calving distribution occupied a tract along the southern and western perimeter of the protection area (Cooper 1981).

Monitoring of post-calving movements in 1981 and 1982 did not show noticeable departure from observations during the previous 3 years. In 1982 most of the cows and calves had left the Protection Area by 18 July (Clement 1983).

Water Crossings

Williams and Gunn (1982) described the attributes of 26 of the 27 water crossings listed in Table 2 and shown on Figure 9. They ranked crossings according to frequency-of-use criteria but added the caveat that changing patterns of range use would greatly alter the use of water crossings. Their ranking system grouped water crossings 22-26, 19-21, 27 and 13-18 in descending order of use for the Beverly herd. A similar triple-tiered ranking of water crossings used by Kaminuriak caribou included water crossings 4, 5, 7-9 in the first order of use, 10 and 11 in the second, and 1-3 and 6 in the third. Water crossing number 12

Table 2. Locations of designated water crossings and dates when sites were described.

No.	Designated water crossing	Coordinates	Date examined	No. of sites
1	N. of Roseblade Lake	61°10'N, 97°02'W	06/08/80	1
2	S. of South Henik Lake	61°87'N, 97°11'W	06/08/80	2
3	Henik Lakes narrows	61°44'N, 97°30'W	05/08/80	1
4	Northwest Kinga Lake	61°54'N, 96°48'W	23/07/80[1]	2
5	Maguse River	61°56'N, 96°29'W	23/07/80[1]	2
6	Mackenzie Lake	62°44'N, 95°46'W	05/08/80	1
7	West Kaminuriak Lake	62°54'N, 96°16'W	19/07/80	2
8	North Kaminuriak Lake	63°14'N, 95°12'W	05/08/80	2
9	Kazan Falls	63°44'N, 95°50'W	28/07/80[1]	1
9a	Below Kazan Falls	63°46'N, 95°45'W	28/07/80[1]	1
10	Above Kazan Falls	63°40'N, 95°53'W	28/07/80[1]	1
11	Thirty Mile Lake	63°39'N, 96°06'W	28/07/80[1]	1
12	Christopher Island	64°07'N, 94°34'W	--	--
13	Thelon River	64°47'N, 96°56'W	12/08/80	2
14	East Schultz Lake	64°40'N, 97°10'W	12/08/80	2
15	West Schultz Lake	64°43'N, 97°54'W	08/08/80	1
16	West Qamanaarjuk Lake	64°42'N, 98°07'W	08/08/80	1
17	East Aberdeen Lake	64°37'N, 98°25'W	08/08/80	2
18	E. Central Aberdeen Lake	64°34'N, 98°33'W	04/08/80	1
19	Central Aberdeen Lake	64°34'N, 99°06'W	04/08/80	1
20	West Aberdeen Lake	64°39'N, 99°54'W	04/08/80	2
21	Dubawnt River	64°24'N, 99°53'W	3-4/08/80	2
22	East Thelon Sanctuary	64°33'N, 101°10'W	04/08/80	2
23	Centre Thelon Sanctuary	64°13'N, 102°38'W	03/08/80	2
24	West Thelon Sanctuary	64°37'N, 104°30'W	24/07/80	1
25	Lac du Bois	63°33'N, 105°42'W	24-25/7/80	2
26	Mary Frances Lake	63°17'N, 106°18'W	25/07/80	2
27	Lockhart River	62°54'N, 108°32'W	01/08/80	--

1 Trails were mapped from a helicopter, other sites mapped from Beaver aircraft.

(Christopher and Bowell Islands) was not ranked because trail systems in the area were not assessed.

Gates (1982) cited 12 references from which evidence as to caribou crossings in the vicinity of Christopher Island (water

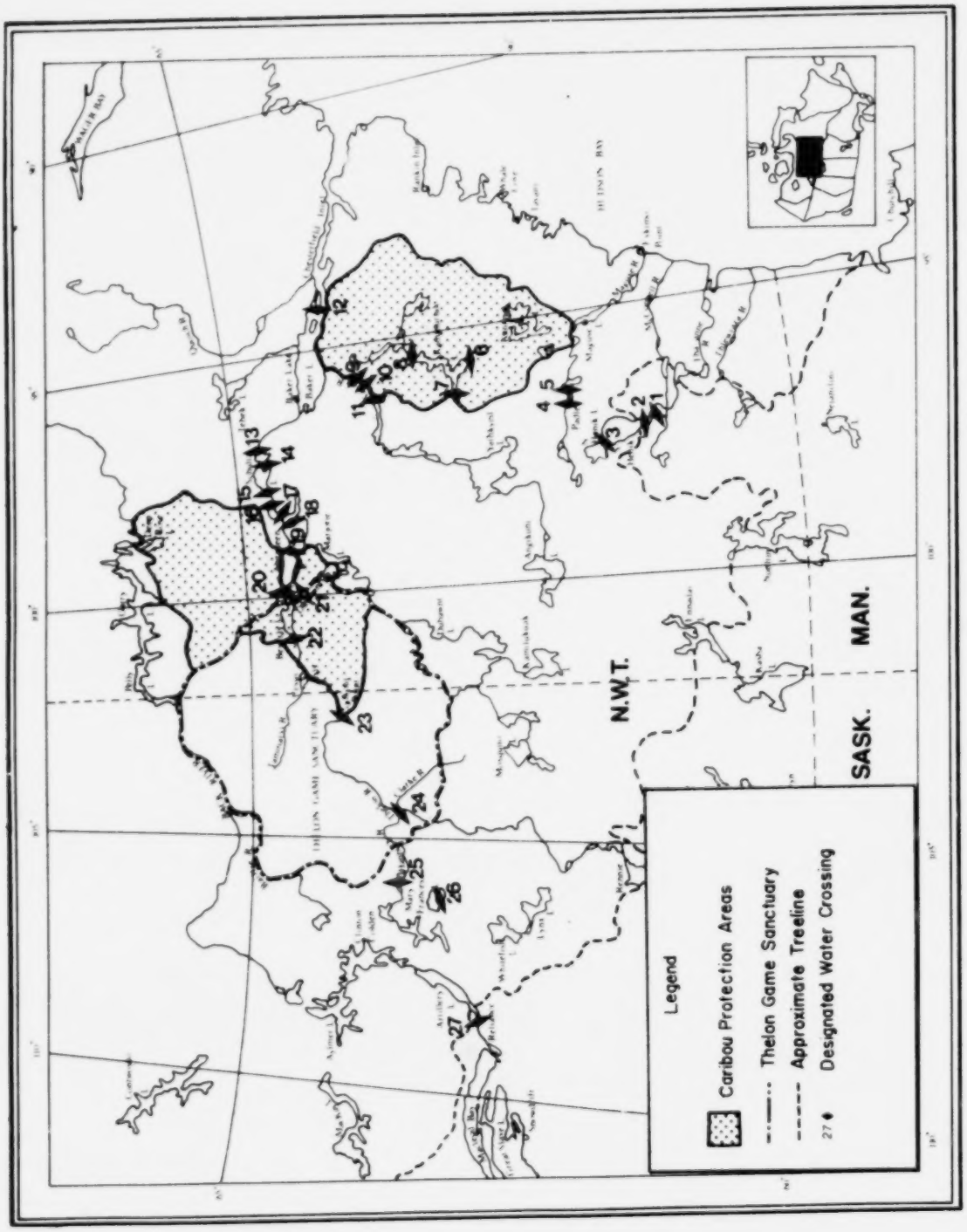


Figure 9. Designated water crossings of Beverly and Kaminuriak herds.

crossing No. 12) could be adduced. Bowell Islands are given as the site of heavy crossing activity but crossing along the entire east end of Baker Lake and the west end of Chesterfield Inlet is indicated. The conclusion reached by Gates is that the Christopher-Bowell Islands system is used primarily as an ice crossing but that crossing during open water should not be ruled out.

Monitoring reports by Darby (1978, 1980) and Cooper (1981) contain reference to 13 water crossings that were known to have been used by caribou during open water from 1978 to 1980 (Table 3). Water crossing use in 1981 and 1982 is not mentioned in monitoring reports.

Efficacy of Caribou Protection Measures

There is no practical method to directly quantify the effectiveness of land use controls designed to minimize the effects of disturbance on caribou. Techniques that are used to measure metabolic costs of activity in domestic animals or in wildlife reared in captivity, are not yet transferable to free-ranging animals. Consequently the physiological cost of escape behaviour in response to an approaching aircraft, or other forms of man-induced stimuli, may be interpreted to signify expenditure of energy but the real energetic cost to caribou cannot be calculated with certainty.

The need for a rigorous and replicable method of measuring effects of disturbance on caribou is recognized as a research

Table 3. Documented use of designated water crossings in 1978, 1979 and 1980.

Year	Water crossing
Beverly herd	
1978-80	Thelon River, Lookout Point - No. 23
1978-80	Thelon River, west of Beverly Lake - No. 22
1978-80	Hanbury River at Lac du Bois - No. 2
1978-80	Thelon River, at confluence with Hanbury River - No. 24
1980	Mary Frances Lake - No. 26
1980	West Schultz Lake - No. 15
Kaminuriak herd	
1978	Ferguson River, between Ferguson Lake and Kaminuriak Lake - No. 7
1979 and 80	Kazan River, Kazan Falls - No. 9
1980	Kinga Lake - No. 4
1980	Maguse River, west of Heninga Lake - No. 5
1980	North Kaminuriak Lake - No. 8
1980	Kazan River, above Kazan Falls - No. 10
1980	Kazan River, below Thirty Mile Lake - No. 11

objective (Jingfors et al. 1982). Comparative studies to describe activity budgets of maternal caribou responding to disturbance, when undisturbed behaviour patterns are known, could form the basis for assessing consequences of disturbance. An inherent difficulty in assessing cause and effect linkages in biological systems is that there may be latent impacts of an incident, or

sequence of stressful events, which do not become immediately apparent. Because of these limitations, namely unquantified impact and long term effects, the success of caribou protection measures can only be assessed as to whether or not the measures prevented man-induced disturbances, during calving and post-calving, that could have affected the general well-being of the population by disrupting cow-calf pairs. The protection measures operated in two ways to reduce disturbance. DIAND intervened to defer some land use operations and a number of companies withdrew from the area during the control periods.

Deferral of Land Use Operations

DIAND's prescription for preventing contact between land use operations and caribou relies on deferring operations until the potential for harmful contact has passed. This is accomplished by monitoring distribution of maternal cows and calves during calving and post-calving periods. Land use operations in areas occupied by cows and calves are held in abeyance until the caribou have left the area.

In 1978, land use operations were excluded from the designated protection areas (Figs. 2 and 3) between 15 May and 31 July. Thus, except for small scale operations that did not require land use permits, protection in these areas was complete.

In 1979, 1980, 1981, and 1982, applications for land use permits inside protection areas were considered subject to presence or absence of caribou in the area of proposed operations.

Monitoring reports for 1981 and 1982 cite seven cases in which land use operations were delayed in efforts to avert disturbances to caribou cows and calves (Table 4). The longest term of deferral was 15 days. the shortest term was 5 days and the mean was 10 days. All of the cited cases are for the Beverly protection area.

Rescheduling of Land Use Operations and Voluntary Suspension of Activities

A number of companies rescheduled the timing of their operations in Keewatin to avoid being in the protection area during the 15 May to 31 July control periods.[1] Companies whose exploration programs could not be rescheduled were obliged to cease operating within the protection areas after 15 May. Continuance of operations beyond 15 May was made possible if DIAND granted a release from controls but the possibility of suspension at any time before 31 July was always present.

Under the general provisions of the Caribou Protection Measures (Appendix A). land use operations were required to cease in any area occupied by cows and calves during calving (15 May - 30 June) or during post-calving (1 July - 31 July). Since cow-calf distributions were not extensively monitored after 1979. conflicts arising from land use outside the protection areas may have gone undetected. Some companies may have voluntarily complied with the protection measures by suspending their operations in areas occupied by caribou cows and calves; however. such cases are not mentioned in the monitoring reports.

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1 Jim Umpherson. DIAND. personal communication.

Table 4. Land use operations deferred by DIAND in response to recommendations of the caribou monitor.

Land use permit number	Proposed commencement date	Deferred commencement date	Length of deferral
N80C217	30 June 1981	7 July 1981	8 days
N81C454	1 July 1981	14 July 1981	15 days
N81C506	10 July 1981	14 July 1981	5 days
N80C242	8 July 1981	14 July 1981	7 days
N80C390	1 July 1981	14 July 1981	15 days
N80C412	17 July 1982	28 July 1982	12 days
N81C506	28 June 1982	5 July 1982	8 days

Seven instances of deferred land use operations in 1981 and 1982 (Table 4) show that Caribou Protection Measures were instrumental in reducing potentially harmful disturbance of caribou cows and calves. Voluntary cessation of operations by some companies and revised work schedules by others may have added to the number of successful interventions.

Aircraft Operations

Directives concerning minimum flying altitudes over caribou on their calving grounds, during post-calving and at water crossings were issued by Transport Canada in 1978 (Appendix I). Operational conditions do not always permit scrupulous compliance with the guidelines requiring an altitude of not less than 300 m over caribou while carrying on geophysical surveys or while slinging with a helicopter. Effectual enforcement of such guidelines is difficult, or impossible without a surveillance

network. However, enunciation of operating guidelines to reduce disturbance of caribou by aircraft appears to have met with voluntary compliance.

Obstructing Water Crossings and Interfering with Migration

The intent of the Caribou Protection Measures with respect to designated water crossings is quite clear. In paragraph 4(a) of Appendix A, protective effort is expressly directed toward prohibiting fuel caches, construction of camps and blasting from within 10 km of a designated crossing site between 15 May and 1 September. Paragraph 4(b) forbids diamond drilling within 5 km of a designated crossing between 15 May and 1 September.

Blocking a migration or causing a substantial diversion of migrating caribou is prohibited at all times under paragraph 3(a) and 3(b) of Appendix A.

Insofar as maintaining the status of water crossings, the protection measures appear to have satisfied the intent of the above paragraphs because accessibility for caribou to the 27 designated crossings listed in Table 2 remained the same from 1978 to 1982.

Crossing No. 3, Henik Lakes Narrows (Table 2, Fig. 9) has a fishing lodge and airstrip within the 10 km distance mentioned in Paragraph 4(a) of Appendix A. This crossing has a low frequency of use ranking (Williams and Gunn 1982). However, there is no direct evidence that the activities associated with the lodge have contributed to the low frequency of use at crossing No. 3 since 1978.

RESEARCH PROGRAM

The need to provide a scientific evaluation of the Caribou Protection Measures was evident during the initial monitoring program. Answers to basic questions, such as how important the areas are to caribou and what effects disturbance would cause to caribou, were largely unknown.

Following several discussions with professional biologists, it was evident there were divergent opinions as to the approach that research should take to address these questions. This culminated in a workshop in September 1979 on the potential effects of industrial disturbance to caribou and the most suitable methods to study the situation (N.W.T. Wildlife Service 1980). The pertinent recommendations from the workshop were:

1) Continue monitoring the movements and seasonal range use of caribou with sufficient intensity to provide accurate baseline data for use in land use planning relative to proposed exploration and development activities and as a basis for assessment of future disturbance effects.

2) Investigate the environmental parameters that characterize caribou calving grounds and undertake studies to provide more precise information on the relative importance and location of critical habitat units.

3) Initiate studies of the behaviour of caribou at water crossings and, where possible, examine the influence of human activities at such crossings on caribou movements.

4) Review state of knowledge regarding caribou and reindeer reaction to disturbances on a worldwide basis. Determine and outline the relevance of knowledge of caribou and reindeer disturbance elsewhere to the situation in the N.W.T. and its applicability to caribou management in the N.W.T.

5) Undertake studies of caribou to provide baseline information for the assessment of disturbance effects.

Emphasis should be on the quantitative description of basic activity patterns within herds, including development of seasonal activity budgets in relation to forage availability, snow cover, insect harassment, predation, hunting and other environmental parameters. Methodology used should be consistent with that employed throughout the circumpolar areas so that results will be comparable between populations under differing combinations of environmental influences. The "standardized normal daily activity patterns" will provide a basis for comparison of research data from areas of suspected disturbance.

Darby (1980a, 1980b) prepared the initial proposals to study the behaviour and activity patterns of barren-ground caribou in relation to mineral exploration and development, as well as a plan to acquire water crossing information. His approach was to quantify "normal" behaviour of caribou and their activity patterns in relation to various environmental parameters. This baseline information would be essential to a second phase study on the assessment of the effects of industrial activities on caribou.

A second study was proposed to assess the environmental characteristics of the Beverly calving ground to determine if the traditional areas had special characteristics that acted to increase calf survival or if there were specific habitat components that were unique to the traditional areas. Information on these aspects was crucial to an understanding of the consequences of a potential displacement of caribou from the traditional calving grounds.

The water crossing study was designed to assess the characteristics of designated sites, their past and present use by caribou and the behaviour of caribou using the crossings under the influence of various environmental factors.

During the winter of 1979-80 it became evident that sufficient funds would not be available to conduct the studies as originally planned and revised proposals were generated to investigate why and how caribou use traditional areas such as calving grounds and water crossings (Gunn 1980). In 1980, two studies were conducted with funding from DIAND:

1) Investigation of some environmental parameters that characterize calving grounds and;

2) Descriptions of physical and environmental characteristics of water crossings.

During the winter of 1980-81, a joint N.W.T. Wildlife Service-Canadian Wildlife Service proposal was developed to conduct baseline studies on the ecological relationship of barren-ground caribou to their calving grounds and the behaviour of caribou on the Beverly calving ground (Gunn and Miller 1980). These studies were carried out in 1980 and 1981, respectively.

Behavioural research in 1982 was an extension of the 1981 program with the added feature of an assessment of behaviour under controlled helicopter and human disturbance. This information will complement the data on baseline behaviour to indicate potential effects of disturbance from land use activity.

Research and Monitoring Reports

Three reports discuss research projects respecting calving ground studies and water crossings. Characteristics of calving grounds are described by Fleck and Gunn (1982). Jingfors et al. (1982) field tested a sampling technique for recording undisturbed behaviour in cow-calf pairs on calving grounds of the Beverly herd. Water crossings and their use are described by Williams and Gunn (1982).

In 1982, caribou responses to a controlled source of disturbance to helicopter landings were recorded (Gunn et al. 1983). A review of research on the effects of human activities on barren-ground caribou of the Kaminuriak and Beverly herds is in preparation.

Caribou monitoring reports were annually submitted to DIAND (Darby 1978 and 1980, Cooper 1981, Clement 1982 and 1983). These reports describe caribou movements and distribution during spring migration, calving and post-calving. Land use activities within the caribou protection areas (Fig. 1) are summarized in monitoring reports for 1980, 1981, and 1982.

RECOMMENDATIONS

Emphasis on site monitoring after 1979 resulted in sporadic reporting of caribou distribution and movements during the control period. Information was gathered as to the presence or absence of caribou in areas where land use operations were proposed, but important questions respecting water crossing use and post-calving movements were not addressed. In the absence of detailed and complete information, such as can be obtained only by systematic reconnaissance, it is difficult to assess the likely benefits and liabilities that may result from revisions to the protection measures.

Greatest benefits may accrue to caribou from a stable social and physical environment in which likelihood of disturbance has been reduced. Since they were first imposed, the protection measures sought to satisfy the objective of maintaining stability by reducing potentially harmful contact between caribou and land use operations. Continuance of the original objective is assumed in framing the following recommendations.

Timing of Caribou Protection Measures

The original criteria of time and space that formed the basis of the protection measures in 1978 can now be re-evaluated. We believe that the protection measures can be effectively administered under a new schedule.

It is recommended that the sensitive times be redefined as follows:

1. Inside Caribou Protection Areas the calving period would extend from 15 May to 30 June. The period from 1 July to 15 July would be known as the immediate post-calving period. After 15 July land use permit holders would be eligible to operate inside protection areas without going through the request for release process; however, general caribou protection measures would apply until 31 July. Information as to the timing of calving and the departure of caribou cows and calves from the calving grounds supports the 15 July lapse date, if caribou cows and calves outside the protection areas are protected.
2. Outside Caribou Protection Areas a land use inspector would be empowered to shut down any land use operation that might cause disturbance to caribou cows and calves from 15 May to 31 July.

Caribou Protection Areas

Designated Caribou Protection Areas for the Beverly and Kaminuriak herds represent the second essential ingredient, space, for meeting the objective of the protection measures. Our review of information on caribou distribution during peaks of calving and immediately after calving indicates that parts of the Caribou Protection Areas established in 1980 are now redundant to the objective of restraining land use permit holders from operating in areas where there is high probability of disturbing caribou cows and calves between 15 May and 15 July.

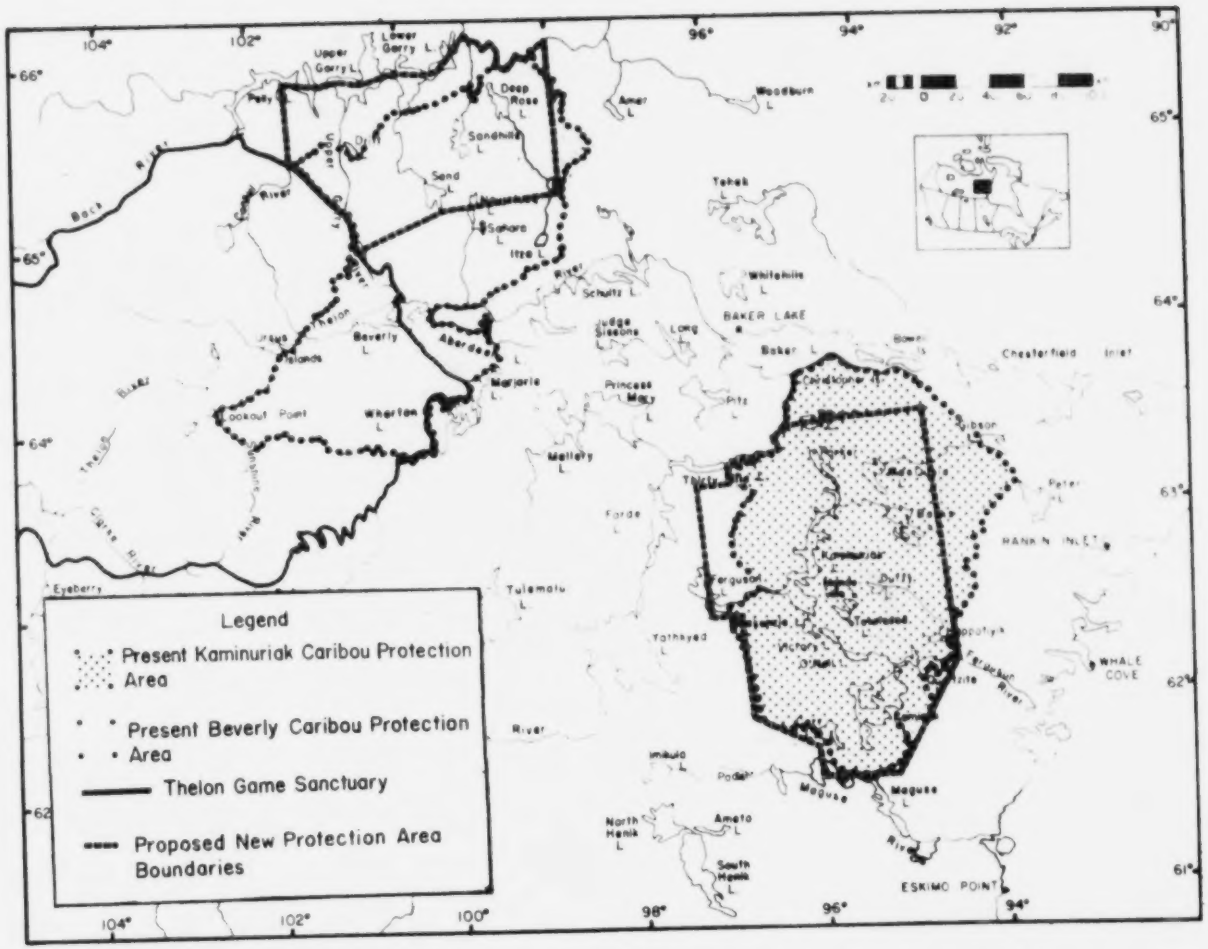
It must be stressed that Caribou Protection Areas based on calving grounds for successive years may fail to isolate caribou cows and calves from land use activities. This cautionary note is added because, whereas the calving grounds are areas known to have been occupied for several days in early June, the control period lasts throughout June and July. In order to protect caribou from contact with land use operations, the protection areas should be more representative of the total areas occupied by caribou cows and calves throughout the control period, not just during peak of calving.

Beverly Herd

The Beverly herd have calved in the northern part of the current protection area in each year between 1978 and 1982. Figure 10 shows the Beverly protection area with the boundaries realigned to include the area used for calving and immediate post-calving from 1978 to 1983. The proposed new boundaries would mean deletion of some parts of the current protection area. This would mean that land use operators could commence work in the formerly protected areas without having to apply for a release, but their activities would be interrupted if caribou cows were disturbed by the work.

Kaminuriak Herd

Since 1978 Kaminuriak caribou have calved in the south-central part of the protection area (Fig. 1). A line drawn from


Legend
Present Kaminuriak Caribou Protection Area
Present Beverly Caribou Protection Area
Thelon Game Sanctuary
Proposed New Protection Area Boundaries
BAKER LAKE
ESKIMO POINT
WHALE COVE
HANNA INLET
Chesterfield Inlet
Upper Garry L.
Lower Garry L.
Deep Rose L.
Sandhill L.
Sand L.
Schultz L.
Whitehills L.
Baker L.
Beverly L.
Aberdeen L.
Marjorie L.
Wharton L.
Princess Mary L.
Mallory L.
Tulemalu L.
Ferguson L.
Yathkyed L.
Amadjuak L.
Maguse L.
Ameto L.
North Henik L.
South Henik L.
Woodburn L.
Tehek L.
Schultz L.
Judge Sissons L.
Long L.
Peter L.
Thelon River
Back River
Eyeberry
Lookout Point
Kaminuriak
Tehek
Ferguson
Yathkyed
Maguse
Amadjuak
Tulemalu
Beverly
Aberdeen
Marjorie
Wharton
Princess Mary
Malloy
Baker
Whitehills
Schultz
Judge Sissons
Long
Peter
Woodburn
Amer
Sandhill
Deep Rose
Upper Garry
Lower Garry
Sand
Ithaca
Sahara
Peny
Thelon
Back
Eyeberry
Lookout Point
Wharton
Beverly
Aberdeen
Marjorie
Princess Mary
Malloy
Tulemalu
Ferguson
Yathkyed
Amadjuak
Maguse
Ameto
North Henik
South Henik
Woodburn
Tehek
Schultz
Judge Sissons
Long
Peter
Baker
Whitehills
Chesterfield Inlet
HANNA INLET
WHALE COVE
ESKIMO POINT
BAKER LAKE

the north end of Forde Lake to the north end of Peter Lake marks the northernmost limit of the calving grounds in each year, except 1979. In addition to using a smaller portion of the calving grounds, Kaminuriak caribou have used a more westerly area. The 1982 calving ground occupied an area that straddled the protection area boundary and extended to Ferguson Lake.

Protection area boundaries based on calving grounds used since 1978 would delete the most northerly and easterly parts of the Kaminuriak protection area. The westward extension of the calving area in 1982 signifies changing patterns of range use by the Kaminuriak herd and the protection area boundary should be revised accordingly (Fig. 10).

It was recommended that the boundaries for the Beverly and Kaminuriak protection areas in 1983 be drawn so as to include the calving and immediate post-calving areas used since 1978 (Fig. 10). New protection area boundaries described under these criteria would be smaller, thus boundary realignment must be considered subject to these conditions:

1. Areas not included within the revised protection area boundaries will continue to receive protection as prescribed under paragraph 2(a) and 2(b) of the 1982 Caribou Protection Measures (Appendix A).

2. The level of monitoring will be sufficient to ensure that, if calving occurs outside the protection areas, the extent of the calving ground in that year will be identified and protected accordingly. Accurate

definition of the calving ground is critical for making sound land use decisions during the calving and immediate post-calving periods.

3. Subsequent boundary changes will be made in response to changing patterns of range use by caribou for calving and post-calving.

Monitoring Program

Caribou monitoring after 1979 ceased to operate as a method for compiling information on general patterns of range use by caribou in the Keewatin. Many of the conclusions drawn in monitoring reports for 1980, 1981 and 1982 are based on calving ground surveys and research unrelated to the monitoring program, and from personal observations communicated to the monitor by persons travelling or working in the region. Decline in monitoring effort is indicated by the number of hours flown for purposes of monitoring in each year of the program. Table 5 shows the number of hours flown by the monitor in each year from 1978 to 1982.

Seventy percent of the total number of monitoring hours were flown in the first 2 years of the program. Site monitoring after 1979 was designed to answer DIAND's information requirements but provided little new data about caribou range use patterns.

There are essentially three distinct options and any number of permutations for future caribou monitoring:

Table 5. Aerial monitoring of caribou from 1978 to 1982.

Year	Hours flown	% of total
1978	245	27
1979	386	43
1980	116	13
1981	103	11
1982	52	6
Total	902	

Option 1. The intensity of monitoring effort may be increased to a level approaching that of 1978 and 1979. At that level of intensity, information about the distribution of caribou during control periods would be sufficiently detailed to form the basis for selectively controlling land use activity according to the presence or absence of caribou without designated Caribou Protection Areas. Under such a monitoring scheme, the general provisions of the Caribou Protection Measures (Appendix A) would be sufficient because land use permit holders could be constrained from operating in any location when caribou were present.

Sufficiently intensive monitoring could provide day-to-day information about the area occupied by caribou from 15 May to 31 July; however, the associated labour and aircraft operating costs would preclude that level of detail.

Option 2. The intensity of monitoring may follow the 1982 model wherein designated protection areas are retained. Monitoring would be carried out to facilitate the release of land use sites in the protection areas between 15 May to 15 July with follow-up to verify that a release previously granted has not been compromised on account of post-release movements by caribou.

The main focus would continue to be on monitoring actual land use sites to satisfy DIAND's information requirements for granting release from controls, but reconnaissance of land use operations would not be limited to protection areas.

Option 3. There may be complete deregulation of Caribou Protection Measures. Adopting this option would signify a return to pre-1978 conditions wherein only standard operating conditions of land use permits would apply. There would be no special land management to avert potentially harmful impacts of

land use operations in traditional caribou calving and post-calving areas. A further consequence would be that original concerns with respect to caribou disturbance would be ignored.

The NWT Wildlife Service considers Option 2 as being the most viable within the range of choices between Options 1 and 3. These benefits are seen to follow from adopting this approach:

1. The mechanism for preventing potentially harmful contact between caribou and land use is retained and it is cost effective, because monitoring effort is directed toward known locations where there is greatest likelihood of disturbance. The only variable that can be assessed to any degree of certainty is the location of land use sites; therefore a monitoring system designed to deal with discrete areas is both pratical and efficient.

2. An elaborate infrastructure to administer the program would not be required. For as long as land use activities remain at approximately the same level as in 1982, inspection duties can be carried out by the wildlife officers in the region in concert with the land use inspectors. The scope of a monitoring program based on the 1982 model does not warrant retaining a full-time monitor.

3. Some aircraft requirements for the program could be absorbed within DIAND's present Land Resources program.

It is recommended that Option 2 be adopted for future caribou monitoring subject to these caveats:

1. Caribou movements to their calving grounds will be monitored with sufficient intensity each spring to provide information for sound land use decisions to be made at the onset of calving. Periodic surveillance during the last week of May and the first week in June should provide sufficient information as to the calving ground in each year.

2. Site monitoring will be followed-up to detect movement of caribou cows and calves to the vicinity of land use sites previously released from controls and to detect post-calving movements to land use operations outside the protection areas.

3. By mid-February in each year, DIAND will make a projection as to the anticipated level of land use activity in the traditional calving and post-calving areas. Land use projections commensurate with the level of activity in 1982 would signify continuance of site monitoring as outlined above. A large increase

in land use operations would have the corollary of more reconnaissance and this may necessitate additional manpower and funding.

The caribou monitoring program can continue as proposed only in the context of land use activities associated with mineral exploration.

Transition from mineral exploration to the development stage will signify the need for mandatory reassessment of land use controls and restructuring of the program.

4. Responsibility for report preparation respecting operational details of the program will be absorbed by DIAND.

5. Funding for administering all aspects of monitoring, except the salaries of N.W.T. Wildlife Service employees who temporarily assist land use inspectors, will be borne by DIAND.

Water Crossings

In 1978 and 1979 the monitoring program included surveillance of water crossings on Aberdeen Lake and Kazan River. Results of these monitoring surveys, together with the water crossing study carried out by N.W.T. Wildlife Service, neither confirm nor reject the importance of specific crossings. Equating importance with

frequency of use signifies one model for a ranking system that may be adopted to re-evaluate designated crossings. Present knowledge does not indicate any deficiency in the current level of protection for water crossings, with the possible exception of misaligned boundaries at some sites.

It is recommended that the boundaries of water crossings 3, 4, 5, 12, 13, 14, 17, 18, 21, 22, 23 and 24 be realigned to reflect confirmed crossing sites. The recommended new boundaries for these water crossings are shown in Appendix J.

Frequency of use data were reviewed to investigate options for deregulating selected water crossings. The review showed that, although some designated crossings appeared to receive less intensive use than others, the available information is not adequate to definitively state that crossings with low frequency of use ratings are unimportant. The general situation is that caribou do not return to precisely the same part of their traditional ranges in successive years. Consequently, one cannot predict with certainty that the status of a specific crossing will remain unchanged. Low frequency of use rankings must be matched with evidence from direct observation in order to confirm the accuracy of the rankings. In the absence of such evidence, and because of the unpredictablility of caribou movements, all designated water crossings should continue to be protected.

Caribou Management Board

There is a similarity between the issues affecting caribou in District of Keewatin and the mandate of the Caribou Management Board.

It is recommended that Caribou Protection Measures be added to the agenda of the Board for their January or mid-winter meeting. This is an appropriate forum to merge land use controls designed to reduce caribou disturbance with other caribou management initiatives.

Aircraft and Other Activities Not Under Land Use Control

It is recommended that companies and persons likely to engage in aerial operations over caribou summer range continue to be deterred from low altitude overflights when caribou are present.

Activities that are exempt from controls under the Territorial Land Use Regulations should be recognized as potential sources of caribou disturbance. Such activities range from intrusions into caribou summer range by persons singly, or in groups, to commercially run fishing lodges.

The information circular (Appendix I) distributed by Transport Canada is an example of an effective method for communicating cautionary instructions to persons whose actions may cause disturbance of caribou.

SUMMARY DISCUSSION ON RECOMMENDATIONS

We re-evaluated time and space criteria that formed the basis of Caribou Protection Measures. Our conclusion is that the period during which land use permit holders must apply for special permission to operate within designated calving and immediate post-calving areas should extend from 15 May to 15 July. After the end of the 1 July to 15 July immediate post-calving period, land use permit holders who want to operate inside protection areas should be allowed to do so; however, their activities may be ordered to stop at anytime until 31 July if caribou cows and calves are in the area.

Caribou protection areas defined on the basis of calving grounds used during the last 5 years will be smaller than the present protection areas. Reducing the size of protection areas has the mandatory condition of continuing with a monitoring program that is sufficiently intensive to detect any shift to other parts of the traditional calving and post-calving areas. The required level of information could be provided by delineating the calving ground and by follow-up monitoring to detect post-calving movements to land use sites. Since land use locations are identified at the time of permit issuance and because land use activity in the area is expected to remain at a low level, the wildlife officers in Keewatin region could provide DIAND with advice and assistance in carrying out the monitoring program. If and when the level of land use in the area increases, it will be necessary to reassess the structure and function of the program.

A further significance of redefining protection areas, to include just the calving and immediate post-calving areas for the last 5 years, is that departure from the calving ground immediately after calving could place caribou cows and calves at some risk of disturbance from land use activity outside the protection area. This risk underlines the importance of follow-up monitoring to detect instances of contact between caribou and land use operations. Land use operations that cause disturbance of caribou cows and calves should be curtailed under general provisions of the protection measures.

Evaluation of water crossings on frequency of use criteria could mean that some designated crossings will be released from controls. Realignment of some water crossing boundaries is necessary if actual crossing sites are to receive protection.

Low altitude overflights of traditional calving and post-calving areas should continue to be discouraged. Persons who venture into traditional calving and post-calving areas should be requested to observe the prescribed control measures even if their activities are exempt from land use regulations.

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Appendix A. Caribou Protection Measures. 1982.

1982 CARIBOU PROTECTION MEASURES (KAMINURIAK AND BEVERLY HERDS)

CARIBOU PROTECTION AREAS

1. (a) The Permittee shall not, without approval, conduct any activity between May 15 and July 31 within the Caribou Protection Areas depicted on the map certified by the Engineer as the "Caribou Protection Map" annexed to this Land Use Permit.

(b) A Permittee may, upon approval by the Land Use Inspector, operate within the said Caribou Protection Areas beyond the May 15 deadline set out in 1(a), provided that when monitoring information indicates that caribou cows are approaching the area of operation, the Permittee will implement 1(c).

(c) On cessation of activities pursuant to 1(a) or 1(b), the Permittee will remove all personnel from the zone who are not required for the maintenance and protection of the camp facilities and equipment unless otherwise directed by the Land Use Inspector.

(d) The Permittee may commence or resume activities prior to July 31 within those parts of the Caribou Protection Areas released by the Land Use Inspector for the reason that caribou cows are not expected to use those parts for calving or post-calving (note 1).

CARIBOU PROTECTION GENERAL

2. (a) In the event that caribou cows calve outside of the Caribou Protection Areas, the Permittee shall suspend operations within the area(s) occupied by cows and/or cows and calves between May 15 and June 30.

(b) In the event that caribou cows and calves are present outside of the Caribou Protection Areas, the Permittee shall suspend the following operations within the area(s) occupied by cows and calves.

(i) airborne geophysics surveys at an altitude of less than 300 metres above ground level.

(ii) slinging of fuel or equipment by helicopter at an altitude of less than 300 metres above ground level.

CARIBOU PROTECTION MIGRATION

3. (a) During migration of caribou, the Permittee shall not locate any operations so as to block or cause substantial diversion to the migration.

(b) The Permittee shall cease activities that may interfere with migration, such as airborne geophysics surveys or movement of equipment, until the migrating cows have passed.

CARIBOU CROSSINGS

4. (a) The Permittee shall not, between May 15 and September 1, construct any camp, cache any fuel or conduct any blasting within 10 km of any "Designated Crossing Site" as outlined on the map certified by the Engineer as the "Caribou Protection Map" and annexed to this Land Use Permit.

(b) The Permittee shall not, between May 15 and September 1, conduct any diamond drilling operation within 5 km of any "Designated Crossing Site" as outlined on the map certified by the Engineer as the "Caribou Protection Map" and annexed to this Land Use Permit.

NOTE

1. The Land Use Inspector's decision will be made on the basis of the existing caribou monitoring information.

2. Concentrations of caribou should be avoided by low level aircraft at all times.

Appendix B. Territorial Land Use Regulations.

CHAPTER 1524

TERRITORIAL LANDS ACT

Territorial Land Use Regulations

REGULATIONS RESPECTING LAND USE OPERATIONS IN THE YUKON TERRITORY AND THE NORTHWEST TERRITORIES

Short Title

1. These Regulations may be cited as the *Territorial Land Use Regulations*.

Interpretation

2. In these Regulations,

"Act" means the *Territorial Lands Act*; (*Loi*)

"Class A Permit" means a permit issued pursuant to section 25; (*permis de catégorie A*)

"Class B Permit" means a permit issued pursuant to section 27; (*permis de catégorie B*)

"crossing" means any bridge, causeway or structure or any embankment, cutting, excavation, land clearing or other works used or intended to be used to enable persons, vehicles or machinery to cross any stream, highway or road; (*passage*)

"district oil and gas conservation engineer" means a conservation engineer appointed pursuant to the *Oil and Gas Production and Conservation Act*; (*ingénieur de district pour la conservation du pétrole et du gaz*)

"Dominion Geodesist" means the Dominion Geodesist and Director of the Geodetic Survey, in the Department of Energy, Mines and Resources; (*géodésien fédéral*)

"Engineer" means, in respect of any provision of these Regulations, the Engineer designated by the Minister pursuant to section 4 for the purposes of that provision; (*ingénieur*)

"geophysical survey" means any investigation carried out on the surface of the ground to determine the nature and structure of the subsurface; (*levé géophysique*)

"inspector" means an inspector designated by the Minister pursuant to section 5; (*inspecteur*)

"land use operation" means any work or undertaking on territorial lands that requires a permit; (*exploitation des terres*)

"letter of clearance" means a letter issued by the Engineer pursuant to section 37; (*lettre d'acquittement*)

"line" means a route used to give surface access to any land for the purpose of carrying out a geophysical, geological or engineering survey; (*ligne de levé*)

"man-day", with respect to the use of a campsite, means the use of that campsite by one person for 24 hours; (*jour-homme*)

CHAPITRE 1524

LOI SUR LES TERRES TERRITORIALES

Règlement sur l'utilisation des terres territoriales

RÈGLEMENT CONCERNANT L'EXPLOITATION DES TERRES DANS LE TERRITOIRE DU YUKON ET LES TERRITOIRES DU NORD-OUEST

Titre abrégé

1. Le présent règlement peut être cité sous le titre: *Règlement sur l'utilisation des terres territoriales*.

Interprétation

2. Dans le présent règlement,

«arpenteur en chef» désigne l'arpenteur en chef selon la définition de la *Loi sur l'arpentage des terres du Canada*; (*Surveyor General*)

«borne-signal» comprend un poteau, un jalon, une jalonnette, un monticule, une fosse, une tranchée, ou tout autre objet, chose ou moyen utilisé pour marquer officiellement la limite d'une terre arpentée ou placée ou établie à des fins topographiques, géodésiques ou cadastrales; (*monument*)

«cours d'eau» comprend un lac, une rivière, un étang, un marais, un marécage, un canal, un ruisseau, un ravin ou un couloir au fond duquel coule de l'eau continûment ou par intermittence; (*stream*)

«date de renvoi de l'équipe» désigne la date à laquelle, de l'avis de l'ingénieur de district pour la conservation du pétrole et du gaz, un puits foré dans le but de découvrir ou de produire du pétrole ou du gaz a été dûment terminé; (*rig release date*)

«détenteur de permis» désigne un détenteur de permis se livrant à une exploitation des terres et toute personne employée à cette fin; (*permittee*)

«exploitation des terres» signifie un travail ou une activité exercée sur des terres territoriales et exigeant un permis; (*land use operation*)

«forage dans le roc» désigne une excavation faite dans un claim minier pour obtenir des renseignements d'ordre géologique; (*rock trenching*)

«géodésien fédéral» désigne le géodésien fédéral et le directeur du Service géodésique du ministère de l'Énergie, des Mines et des Ressources; (*Dominion Geodesist*)

«ingénieur» désigne l'ingénieur nommé par le Ministre selon l'article 4; (*Engineer*)

«ingénieur de district pour la conservation du pétrole et du gaz» désigne un ingénieur de la conservation nommé selon la *Loi sur la production et la conservation du pétrole et du gaz*; (*district oil and gas conservation engineer*)

"Minister" means the Minister of Indian Affairs and Northern Development; (*Ministre*)

"monument" means any post, stake, peg, mound, pit, trench or any other object, thing or device used to officially mark the boundary of any surveyed lands, or placed or established for any topographic, geodetic or cadastral purpose; (*borne-signal*)

"permit" means a Class A Permit or a Class B Permit; (*permis*)

"permittee" means the holder of a permit and includes a person engaged in a land use operation or anyone employed by a permittee to conduct a land use operation; (*détenteur de permis*)

"rig release date" means the date on which, in the opinion of a district oil and gas conservation engineer, a well drilled for the purpose of discovering or producing oil and gas has been properly terminated; (*date de renvoi de l'équipe*)

"rock trenching" means any excavation carried out on a mineral claim for the purpose of obtaining geological information; (*forage dans le roc*)

"spud-in" means the initial penetration of the ground for the purpose of drilling an oil or gas well; (*percée*)

"stream" means any lake, river, pond, swamp, marsh, channel, gully, coulee or draw that continuously or intermittently contains water; (*cours d'eau*)

"Surveyor General" means the Surveyor General as defined in the *Canada Lands Surveys Act*; (*arpenteur en chef*)

"territorial lands" means lands in the Yukon Territory or in the Northwest Territories

(*a*) that are vested in the Crown or of which the Government of Canada has power to dispose, and

(*b*) that are under the control, management and administration of the Minister. (*terres territoriales*)

«inspecteur» désigne un inspecteur nommé par le Ministre selon l'article 5; (*inspector*)

«jour-homme» signifie dans le cas de l'utilisation d'un campement, l'utilisation de ce campement par une personne durant 24 heures; (*man-day*)

«lettre d'acquittement» désigne une lettre délivrée par l'ingénieur selon l'article 37; (*letter of clearance*)

«levé géophysique» signifie une recherche effectuée à la surface du sol pour déterminer la nature et la structure sous-jacentes; (*geophysical survey*)

«ligne de levé» désigne une route d'accès à un terrain, utilisée pour l'exécution de levés géophysiques, géologiques ou de génie civil; (*line*)

«Loi» désigne la *Loi sur les terres territoriales*; (*Act*)

«Ministre» désigne le ministre des Affaires indiennes et du Nord canadien; (*Minister*)

«passage» comprend un pont, une chaussée, une structure, une digue, une tranchée, une excavation, un espace libre ou autres travaux permettant ou destinés à permettre à des personnes, véhicules ou machines de franchir un cours d'eau, un chemin ou une route; (*crossing*)

«percée» signifie la première pénétration du sol pour le forage d'un puits de pétrole ou de gaz; (*spud-in*)

«permis» désigne un permis de catégorie A ou B; (*permit*)

«permis de catégorie A» désigne un permis délivré selon l'article 25; (*Class A Permit*)

«permis de catégorie B» désigne un permis délivré selon l'article 27; (*Class B Permit*)

«terres territoriales» désigne les terres comprises dans les territoires du Nord-Ouest ou dans le territoire du Yukon

a) dévolues à la Couronne ou dont le gouvernement du Canada a le pouvoir de disposer, et

b) dont le Ministre a le contrôle, la gérance et l'administration. (*territorial lands*)

Establishment of Land Management Zones

3. The Yukon Territory and the Northwest Territories are hereby set apart and appropriated as land management zones.

Constitution de zones de gestion des terres

3. Le territoire du Yukon et les territoires du Nord-Ouest sont mis à part et affectés à titre de zones de gestion des terres.

Designation of the Engineer

4. The Minister may designate any officer of the Department of Indian Affairs and Northern Development as Engineer for the purposes of any provision of these Regulations.

Nomination de l'ingénieur

4. Le Ministre peut désigner un fonctionnaire du ministère des Affaires indiennes et du Nord canadien pour agir comme ingénieur aux fins du présent règlement.

Designation of Inspectors

5. The Minister may designate any person as an inspector for the purposes of these Regulations.

Nomination des inspecteurs

5. Le Ministre peut désigner toute personne pour agir comme inspecteur aux fins du présent règlement.

Exemption from Regulations

6. These Regulations do not apply to

(*a*) anything done by a resident of the Yukon Territory or the Northwest Territories in the normal course of hunting, fishing or trapping;

(*b*) anything done in the course of prospecting, staking or locating a mineral claim unless it requires a use of equipment or material that normally requires a permit;

Portée du règlement

6. Le présent règlement ne s'applique pas

a) aux activités de chasse, de pêche et de trappe exercées par un résident du territoire du Yukon ou des territoires du Nord-Ouest;

b) aux activités de prospection, de jalonnage ou de localisation d'un claim minier, à moins qu'elles ne requièrent l'utilisation d'équipement ou de matériaux nécessitant un permis;

(*c*) lands whose surface rights have all been disposed of by the Minister; or

(*d*) a timber operation conducted pursuant to section 8 of the *Territorial Timber Regulations*.

7. No person shall engage in a land use operation except in accordance with these Regulations and the *Northern Inland Waters Act* and regulations made thereunder.

Prohibitions

8. No person shall, without a Class A Permit, carry on any work or undertaking on territorial lands that involves

(*a*) the use, in any 30-day period, of more than 150 kg of explosives;

(*b*) the use, except on a public road or trail maintained wholly or in part by federal funds, of any vehicle that exceeds 10 t net vehicle weight;

(*c*) the use of any power driven machinery for earth drilling purposes whose operating weight, excluding the weight of drill rods or stems, bits, pumps and other ancillary equipment, exceeds 2.5 t;

(*d*) the establishment of any campsite that is to be used for more than 400 man-days;

(*e*) the establishment of any petroleum fuel storage facility exceeding 80 000 *l* capacity or the use of a single container for the storage of petroleum fuel that has a capacity exceeding 4 000 *l*;

(*f*) the use of any self-propelled power driven machine for moving earth or clearing land of vegetation;

(*g*) the use of any stationary power driven machine for hydraulic prospecting, moving earth or clearing land, other than a power saw; or

(*h*) the levelling, grading, clearing, cutting or snowploughing of any line, trail or right-of-way exceeding 1.5 m in width and exceeding 4 ha in area.

9. No person shall, without a Class B Permit, carry on any work or undertaking on territorial lands that involves

(*a*) the use, in any 30-day period, of more than 50 kg but less than 150 kg of explosives;

(*b*) the use, except on a public road or trail maintained wholly or in part by federal funds, of any vehicle that is more than 5 t but less than 10 t net vehicle weight, or the use of any vehicle of any weight that exerts pressure on the ground in excess of 35 k pa;

(*c*) the use of any power driven machinery for earth drilling purposes whose operating weight, excluding the weight of drill rods or stems and bits, pumps and other ancillary equipment, is more than 500 kg but less than 2.5 t;

(*d*) the establishment of any campsite that is to be used by more than two people for more than 100 but less than 400 man-days;

(*e*) the establishment of any petroleum fuel storage facility that has a capacity of more than 4 000 *l* but less than 80 000 *l* or the use of a single container for the storage of

c) aux terres dont tous les droits de surface ont été cédés par le Ministre; ni

d) aux travaux de coupe de bois entrepris selon l'article 8 du *Règlement sur le bois des territoires*.

7. Nul ne peut entreprendre l'exploitation des terres à moins de se conformer au présent règlement, à la *Loi sur les eaux intérieures du Nord* et au règlement établi selon cette loi.

Interdictions

8. Nul ne peut, sans un permis de catégorie A, entreprendre, sur des terres territoriales, un travail ou une activité impliquant

a) l'utilisation, au cours d'une période de 30 jours, de plus de 150 kg d'explosifs;

b) l'utilisation, sauf sur une voie publique ou un sentier entretenu en totalité ou en partie à même les deniers publics, d'un véhicule de plus de 10 tonnes;

c) l'utilisation d'une machine motorisée de forage dont le poids durant les travaux est supérieur à 2.5 t, non compris le poids des tiges de forage ou des maîtresses-tiges, des trépans, des pompes et autres accessoires;

d) l'installation d'un campement destiné à l'utilisation pour plus de 400 jours-hommes;

e) aux fins d'entreposage du combustible, la création d'installations ayant une capacité supérieure à 80 000 litres ou l'utilisation d'un seul réservoir ayant une capacité supérieure à 4 000 litres;

f) l'utilisation, pour le terrassement et l'essartage, d'une machine motorisée autoguidée;

g) l'utilisation, pour la prospection hydraulique, le terrassement et l'essartage, d'une machine fixe motorisée, autre qu'une scie mécanique; ou

h) le nivelage, le terrassement, l'essartage, l'excavation ou le déblaiement de neige d'une ligne de levé, d'un sentier ou d'une servitude de passage d'une largeur de plus 1,5 mètre et d'une superficie de plus de 4 hectares.

9. Nul ne peut, sans un permis de catégorie B, entreprendre, sur des terres territoriales, un travail ou une activité impliquant

a) l'utilisation, au cours d'une période de 30 jours, de plus de 50 kg d'explosifs, sans dépasser 150 kg;

b) l'utilisation, sauf sur une voie publique ou un sentier entretenu en totalité ou en partie à même les deniers publics, d'un véhicule de plus de 5 t mais de moins de 10 t ou l'utilisation d'un véhicule, exerçant sur le sol une pression supérieure à 35 k pa;

c) l'utilisation d'une machine motorisée de forage dont le poids durant les travaux est supérieur à 500 kg, mais inférieur à 2.5 t, non compris le poids des tiges de forage ou des maîtresses-tiges, des trépans, des pompes et autres accessoires;

d) l'installation d'un campement destiné à l'utilisation de plus de deux personnes pour plus de 100 mais moins de 400 jours-hommes;

petroleum fuel that has a capacity of more than 2 000 *l* but less than 4 000 *l*; or

(*f*) the levelling, grading, clearing, cutting or snowploughing of any line, trail or right-of-way exceeding 1.5 m in width but not exceeding 4 ha in area.

10. No permittee shall, unless expressly authorized in his permit or expressly authorized in writing by an inspector

(*a*) conduct a land use operation within 30 m of a known monument or a known or suspected archaeological site or burial ground;

(*b*) when excavating territorial land within 100 m of any stream, excavate at a point that is below the normal high water mark of that stream;

(*c*) deposit on the bed of any stream any excavated material; or

(*d*) when placing a fuel or supply cache within 100 m of any stream, place the fuel or supply cache below the normal high water mark of that stream.

Small Fuel Caches

11. Every person who establishes a fuel cache of more than 400 *l* and less than 4 000 *l* on territorial land for which a permit is not required shall, within 30 days of the establishment thereof, notify the Engineer in writing, giving details of the cache including the amount and type of fuel, size of containers and method of storage and proposed date of removal of the cache.

Excavation

12. Subject to the terms and conditions of his permit or the express written authority of an inspector, every permittee shall replace all materials removed by him in the course of excavating, other than rock trenching, and shall level and compact the area of the excavation.

Water Crossings

13. (1) Subject to the terms and conditions of his permit or the express written authority of an inspector, every permittee shall

(*a*) remove any material or debris deposited in any stream in the course of a land use operation, whether for the purpose of constructing a crossing or otherwise, and

(*b*) restore the channel and bed of the stream to their original alignment and cross-section,

prior to the completion of the land use operation or prior to the commencement of spring break-up, whichever occurs first.

(2) Subsection (1) shall not be deemed to permit any person to deposit any material or debris in a stream contrary to the *Northern Inland Waters Act* or the *Fisheries Act* or any regulations made under those Acts.

e) aux fins d'entreposage du combustible, la création d'installations ayant une capacité supérieur à 4 000 litres, mais inférieure à 80 000 litres ou l'utilisation d'un seul réservoir ayant une capacité supérieure à 2 000 litres, mais inférieure à 4 000; ou

f) le nivelage, le terrassement, l'essartage, l'excavation ou le déblaiement de neige d'une ligne de levé, d'un sentier ou d'une servitude de passage d'une largeur de plus de 1,5 mètre et d'une superficie n'excédant pas 4 hectares.

10. Un détenteur de permis ne peut, sauf autorisation explicite du permis ou autorisation explicite écrite d'un inspecteur,

a) conduire une exploitation des terres à moins de 30 mètres d'une borne-signal connue, ou d'un gisement archéologique ou cimetière connu ou supposé;

b) de faire, à moins de 100 mètres d'un cours d'eau, sur des terres territoriales, des travaux d'excavation au-dessous du niveau normal de ses hautes eaux;

c) de déverser des déblais dans le lit d'un cours d'eau; ou

d) de déposer du combustible ou des fournitures dans une cache au-dessous du niveau normal des hautes eaux d'un cours d'eau lorsque la cache est à moins de 100 mètres de ce cours d'eau.

Cache de combustible de faible capacité

11. Une personne qui installe, sur des terres territoriales, une cache de combustible, dont la capacité est supérieure à 400 litres, mais inférieure à 4 000 litres et pour laquelle un permis n'est pas exigé en avise par écrit l'ingénieur dans les 30 jours, lui donnant les détails de la cache, y compris la quantité et le genre de combustible, la taille des réservoirs, la méthode d'entreposage et la date prévue de l'enlèvement de la cache.

Excavation

12. Sous réserve de son permis ou de l'autorisation explicite écrite d'un inspecteur, un détenteur de permis procédant à une excavation qui n'est pas un forage dans le roc comble l'excavation avec les déblais qu'il veille à niveler et tasser.

Passages d'eau

13. (1) Sous réserve de son permis ou de l'autorisation explicite écrite d'un inspecteur, un détenteur de permis

a) enlève les matériaux ou débris déposés dans un cours d'eau lors de l'exploitation des terres, que ce soit pour la construction d'un passage ou autre, et

b) remet le lit du cours d'eau dans son alignement et sa coupe transversale d'origine,

avant l'achèvement de l'exploitation des terres ou avant le début de la débâcle printanière, selon le premier événement.

(2) Le paragraphe (1) n'est pas réputé autoriser quiconque à déposer des matériaux ou débris dans un cours d'eau, en contravention de la *Loi sur les eaux intérieures du Nord*, de la *Loi sur les pêcheries* ou de leurs règlements respectifs.

Clearing of Lines, Trails or Rights-of-Way

14. (1) Unless expressly authorized in a permit, no permittee shall

(*a*) clear a new line, trail or right-of-way where there is an existing line, trail or right-of-way that he can use;

(*b*) clear a line, trail or right-of-way wider than 10 m; or

(*c*) while clearing a line, trail or right-of-way, leave leaners or debris in standing timber.

(2) Where, in the opinion of an inspector, serious erosion may result from a land use operation, the permittee shall adopt such measures to control erosion as may be required by the inspector.

Monuments

15. (1) Where a boundary monument is damaged, destroyed, moved or altered in the course of a land use operation, the permittee shall

(*a*) report the fact immediately to the Surveyor General and pay to the Surveyor General the costs of

(i) investigating such damage, destruction, movement or alteration, and

(ii) restoring or re-establishing the monument to its original condition or its original place; or

(*b*) with the prior written consent of the Surveyor General, cause the monument to be restored or re-established at his own expense.

(2) Where a topographic or geodetic monument is damaged, destroyed or altered in the course of a land use operation, the permittee shall

(*a*) report the fact immediately to the Dominion Geodesist, and pay to the Dominion Geodesist the costs described in subparagraphs (1)(*a*)(i) and (ii); or

(*b*) with the prior written consent of the Dominion Geodesist, cause the monument to be restored or re-established at his own expense.

(3) The restoration or re-establishment of a monument pursuant to subsection (1) or (2) shall be carried out in accordance with instructions from the Surveyor General or Dominion Geodesist, as the case may be.

Archaeological Sites

16. Where, in the course of a land use operation, a suspected archaeological site or burial ground is unearthed or otherwise discovered, the permittee shall immediately

(*a*) suspend the land use operation on the site; and

(*b*) notify the Engineer or an inspector of the location of the site and the nature of any unearthed materials, structures or artifacts.

Campsites

17. (1) Subject to the terms and conditions of his permit, every permittee shall dispose of all garbage, waste and debris

Essartage de lignes de levé, de sentiers et de servitudes de passage

14. (1) Un détenteur de permis ne peut, sauf autorisation explicite de son permis,

a) essarter une ligne de levé, un sentier ou une servitude de passage, s'il en est de praticables;

b) essarter une ligne de levé, un sentier ou une servitude de passage d'une largeur supérieure à 10 mètres; ou

c) laisser, lors de l'essartage d'une ligne de levé, d'un sentier ou d'une servitude de passage, des débris ou des arbres inclinés parmi du bois sur pied.

(2) Lorsqu'un inspecteur est d'avis que l'exploitation des terres pourrait causer une grave érosion, il peut imposer au détenteur de permis les mesures adéquates pour l'éviter.

Bornes-signaux

15. (1) Le détenteur de permis qui, au cours de l'exploitation des terres, endommage, détruit, déplace ou modifie une borne-signal de limite

a) en informe immédiatement l'arpenteur en chef et lui paie les frais

(i) d'enquête sur les dommages, la destruction, le déplacement ou la modification, et

(ii) de remise de la borne-signal dans son état ou à son lieu d'origine; ou

b) fait remettre, à ses frais et avec le consentement préalable et écrit de l'arpenteur en chef, la borne-signal dans son état ou à son lieu d'origine.

(2) Le détenteur de permis qui, au cours de l'exploitation des terres, endommage, détruit, déplace ou modifie une borne-signal topographique ou géodésique

a) en informe immédiatement le géodésien fédéral et lui paie les frais visés aux sous-alinéas (1)*a*)(i) et (ii); ou

b) fait remettre, à ses frais et avec le consentement préalable et écrit du géodésien fédéral, la borne-signal dans son état ou à son lieu d'origine.

(3) La remise en état ou en place d'une borne-signal selon les paragraphes (1) et (2) est exécutée selon les directives de l'arpenteur en chef ou du géodésien fédéral, selon le cas.

Gisements archéologiques

16. Dès que, au cours d'une exploitation des terres, est soupçonnée l'exhumation ou la découverte d'un gisement archéologique ou d'un cimetière, le détenteur de permis

a) cesse l'exploitation des terres à cet endroit; et

b) avise l'ingénieur ou un inspecteur de l'emplacement du gisement et de la nature des matériaux, constructions ou objets exhumés.

Campements

17. (1) Sous réserve de son permis, un détenteur de permis qui a utilisé un campement pour une exploitation des terres,

from any campsite used in connection with a land use operation by removal, burning or burial or by such other method as may be directed by an inspector.

(2) Sanitary sewage produced in connection with land use operations shall be disposed of in accordance with the *Public Health Ordinance* of the Northwest Territories or the *Public Health Ordinance* of the Yukon Territory, whichever is applicable, and any regulations made under the applicable Ordinance.

Restoration of Permit Area

18. Subject to the terms and conditions of his permit, every permittee shall, after completion of a land use operation, restore the permit area as nearly as possible to the same condition as it was prior to the commencement of the land use operation.

Removal of Buildings and Equipment

19. (1) Subject to subsections (2) and (3), every permittee shall, on completion of a land use operation, remove all buildings, machinery, equipment, materials and fuel drums or other storage containers used in connection with the land use operation.

(2) A permittee may, with the prior written approval of the Engineer, leave on territorial lands such buildings, equipment machinery and materials as the permittee deems may be required for future land use operations or other operations in the area, but any equipment, machinery or materials so left shall be stored in a manner, at a location and for a duration approved by the Engineer.

(3) Subject to any applicable mining legislation, a permittee may, without the prior approval of the Engineer, leave diamond drill cores at a drill site on territorial lands.

Emergencies

20. Any person may, in an emergency that threatens life, property or natural environment, carry out such operation as he deems necessary to cope with the emergency, whether or not the operation is carried out in accordance with these Regulations or any permit that he may have and such person shall immediately thereafter send a written report to the Engineer describing the duration, nature and extent of the operation.

Eligibility for a Permit

21. In order to be eligible for a permit, a person shall

(*a*) where a right to search for, win or exploit minerals or natural resources is to be exercised by the carrying out of the land use operation authorized by the permit, be

(i) the holder of that right,

(ii) the manager of operations, where there is more than one holder of that right and such holders have entered into an exploration or operating agreement designating one of them as manager of operations, or

(iii) the person who contracts to have the land use operations carried out, where there is more than one holder of

fait disparaître tous les déchets, rebuts et débris en les enlevant, en les brûlant, en les enterrant ou selon la méthode que peut imposer l'inspecteur.

(2) Les eaux-vannes résultant de l'exploitation des terres sont évacuées selon l'*Ordonnance concernant l'hygiène publique des territoires du Nord-Ouest* ou l'*Ordonnance concernant l'hygiène publique du territoire du Yukon* et leurs règlements respectifs.

Remise en état de la zone visée par un permis

18. A la fin de l'exploitation des terres et sous réserve de son permis, un détenteur de permis remet autant que possible la zone concernée dans son état initial.

Enlèvement des bâtiments et de l'équipement

19. (1) Sous réserve des paragraphes (2) et (3), un détenteur de permis enlève, à la fin de l'exploitation des terres, les bâtiments, la machinerie, les matériaux et les barils de combustible ou autres réservoirs d'entreposage utilisés pour l'exploitation.

(2) Un détenteur de permis peut, avec l'autorisation écrite et préalable de l'ingénieur, laisser sur des terres territoriales, les bâtiments, l'équipement, la machinerie et les matériaux qu'il juge indispensables pour une exploitation ultérieure des terres de la zone; dès lors, l'équipement, la machinerie et les matériaux ainsi laissés sont entreposés de la façon, à l'endroit et pour la durée qu'impose l'ingénieur.

(3) Sous réserve de toute législation minière applicable, un détenteur de permis peut laisser, sans l'approbation préalable de l'ingénieur, les carottes de foreuse à diamants dans une zone de forage des terres territoriales.

Urgences

20. Une personne peut, lors d'une urgence qui menace la vie, les biens ou l'environnement naturel, prendre les mesures qu'elle juge indispensables pour y faire face, que ces mesures soient conformes ou non à ce règlement ou au permis qu'elle détient et elle expédie sans délai à l'ingénieur un rapport écrit précisant la durée, la nature et l'étendue des mesures prises.

Éligibilité

21. Pour être éligible à un permis, une personne doit être

a) lorsque l'exploitation des terres autorisée par le permis a pour objet le droit de prospection, d'extraction ou d'exploitation des minéraux ou des ressources naturelles,

(i) le titulaire de ce droit,

(ii) s'il existe plusieurs titulaires et qu'ils ont conclu une convention d'exploration ou d'exploitation désignant l'un d'eux comme directeur des travaux, ce directeur, ou

(iii) s'il existe plusieurs titulaires et qu'ils n'ont pas conclu une telle convention, celui qui s'engage à faire exécuter l'exploitation des terres;

that right and they have not entered into an exploration or operating agreement designating one of them as manager of operations;

(*b*) where no right to search for, win or exploit minerals or natural resources is to be exercised by the carrying out of the land use operation authorized by the permit, be the person who contracts to have the land use operation carried out; or

(*c*) in any case not provided for in paragraph (*a*) or (*b*), be the person who is to carry out the land use operation.

b) lorsque l'exploitation des terres autorisée par le permis n'a pas pour objet le droit de prospection, d'extraction ou d'exploitation des minéraux ou des ressources naturelles, celui qui s'engage à faire exécuter l'exploitation des terres; ou

c) dans tous les autres cas, celui qui doit exécuter l'exploitation des terres.

Application for a Permit

22. (1) Any person who, in accordance with section 21, is eligible for a permit may submit to the Engineer, in duplicate, an application for a permit in a form approved by the Minister.

(2) Every application submitted pursuant to subsection (1) shall be accompanied by the applicable application fee and land use fee, if any, set out in the schedule and a preliminary plan showing

(*a*) the lands proposed to be used and an estimate of their area; and

(*b*) the approximate location of all

(i) existing lines, trails, rights-of-way and cleared areas proposed to be used in the land use operation,

(ii) new lines, trails, rights-of-way and cleared areas proposed to be used in the land use operation,

(iii) buildings, campsites, air landing strips, air navigation aids, fuel and supply storage sites, waste disposal sites, excavations and other works and places proposed to be constructed or used during the land use operation, and

(iv) bridges, dams, ditches, railroads, highways and roads, transmission lines, pipelines, survey lines and monuments, air landing strips, streams and all other features, structures or works that, in the opinion of the applicant, may be affected by the land use operation.

(3) For the purpose of calculating the land use fee payable where territorial lands are proposed to be used for a line, trail or right-of-way, the width of the line, trail or right-of-way shall, unless otherwise specified by the Engineer in the permit, be deemed to be 10 m.

23. (1) The Engineer may, before issuing a permit,

(*a*) order an inspection of the lands proposed to be used thereunder; and

(*b*) require an applicant for a permit to provide him with such information and data concerning the proposed use of the lands and the physical and biological characteristics thereof as will enable the Engineer to evaluate any quantitative and qualitative effects of the proposed land use operation.

Demande de permis

22. (1) Une personne éligible à un permis selon l'article 21 peut présenter, en double exemplaire, à l'ingénieur une demande de permis en la forme approuvée par le Ministre.

(2) La demande de permis présentée selon le paragraphe (1) est accompagnée du droit applicable à la demande et, s'il y a lieu, du droit d'utilisation des terres visé à l'annexe, ainsi que d'un plan provisoire indiquant

a) les terres que le requérant se propose d'utiliser et leur superficie estimative; et

b) l'emplacement approximatif

(i) des lignes de levé, sentiers, servitudes de passage et zones essartées en existence que le requérant se propose d'utiliser lors de l'exploitation des terres,

(ii) des nouvelles lignes de levé, nouveaux sentiers, nouvelles servitudes de passage et nouvelles zones essartées que le requérant se propose d'utiliser lors de l'exploitation des terres,

(iii) des bâtiments, campements, pistes d'atterrissage, aides à la navigation aérienne, endroits d'entreposage des combustibles et fournitures, dépotoirs, excavations et autres travaux et endroits que le requérant se propose d'aménager ou d'utiliser lors de l'exploitation des terres, et

(iv) des ponts, barrages, fossés, voies ferrées, routes, chemins, lignes de transmission, pipe-lines, lignes de levé et bornes-signaux, pistes d'atterrissage, cours d'eau et autres éléments, structures ou travaux pouvant, de l'avis du requérant, être affectés par l'exploitation des terres.

(3) La largeur des lignes de levé, des sentiers ou des servitudes de passage qui doivent être aménagés à même des terres territoriales est, aux fins du calcul du droit d'utilisation et sauf avis contraire de l'ingénieur dans le permis, censée être de 10 mètres.

23. (1) Avant de délivrer un permis, l'ingénieur peut

a) ordonner une inspection des terres que le requérant se propose d'utiliser; et

b) exiger du requérant qu'il lui fournisse des renseignements et des données sur l'utilisation projetée de terres et sur leurs caractéristiques physiques et biologiques, de façon à lui permettre de prédire les effets qualitatifs et quantitatifs de leur exploitation.

(2) Where an inspector makes an inspection pursuant to an order of the Engineer under paragraph (1)(*a*), he shall investigate and report to the Engineer particulars of

(*a*) the existing biological and physical characteristics of the lands proposed to be used and the surrounding lands;

(*b*) any disturbance that the proposed land use operation may cause on the lands proposed to be used and the surrounding lands and the biological characteristics thereof; and

(*c*) the manner in which the disturbance referred to in paragraph (*b*) may be minimized and controlled.

(3) The Engineer may, where he deems it necessary or when requested to do so by an applicant, inform the applicant of the nature of an inspector's report referred to in subsection (2).

24. Where the Engineer receives an application for a Class A Permit that is not made in accordance with these Regulations, he shall, within 10 days thereafter, notify the applicant in writing that his application cannot be accepted and give the reasons therefor.

25. (1) The Engineer shall, within 10 days after receipt of an application for a Class A Permit made in accordance with these Regulations,

(*a*) issue a Class A Permit subject to any terms and conditions he may include therein pursuant to subsection 31(1);

(*b*) notify the applicant that further time is required to issue a permit and give the reasons therefor;

(*c*) notify the applicant in writing that he has ordered further studies or investigations to be made respecting the lands proposed to be used and state the reasons therefor; or

(*d*) refuse to issue a permit and notify the applicant in writing of his refusal and the reasons therefor.

(2) Where the Engineer has notified an applicant that further time is required to issue a permit pursuant to paragraph (1)(*b*), he shall, within 42 days after the date of receipt of the application, comply with paragraph (1)(*a*), (*c*) or (*d*).

(3) Where the Engineer has notified an applicant that he has ordered further studies or investigations to be made pursuant to paragraph (1)(*c*), he shall, within 12 months after the date of receipt of the application, comply with paragraph (1)(*a*) or (*d*).

26. Where the Engineer receives an application for a Class B Permit that is not made in accordance with these Regulations, he shall, within 3 days thereafter, notify the applicant in writing that his application cannot be accepted and give the reasons therefor.

27. The Engineer shall, within 10 days after receipt of an application for a Class B Permit made in accordance with these Regulations,

(*a*) issue a Class B Permit subject to any terms and conditions he may include therein pursuant to subsection 31(1); or

(*b*) refuse to issue a permit and notify the applicant in writing of his refusal and the reasons therefor.

(2) L'inspecteur qui fait une inspection sur ordre de l'ingénieur selon l'alinéa (1)*a*) informe celui-ci des résultats de son enquête sur

a) les caractéristiques physiques et biologiques existantes des terres dont l'utilisation est projetée et des terres adjacentes;

b) la perturbation que l'exploitation envisagée des terres peut causer à ces terres et aux terres adjacentes, ainsi que les caractéristiques biologiques de cette perturbation; et

c) la façon dont la perturbation peut être réduite et contrôlée.

(3) L'ingénieur peut, lorsqu'il le juge nécessaire ou à la demande du requérant, aviser celui-ci du contenu du rapport de l'inspecteur visé au paragraphe (2).

24. Dans les 10 jours de la réception d'une demande de permis de catégorie A non conforme au présent règlement, l'ingénieur donne au requérant un avis écrit et motivé du rejet de sa demande.

25. (1) Dans les 10 jours de la réception d'une demande de permis de catégorie A conforme à ce règlement, l'ingénieur

a) délivre le permis sous réserve des conditions qu'il peut y énoncer, selon le paragraphe 31(1);

b) donne au requérant un avis motivé du délai supplémentaire requis pour sa délivrance;

c) donne au requérant un avis écrit et motivé à l'effet qu'il a ordonné des études ou enquêtes supplémentaires sur les terres dont l'utilisation est envisagée; ou

d) donne au requérant un avis écrit et motivé du rejet de la demande de permis.

(2) Lorsque l'ingénieur a, selon l'alinéa (1)*b*), avisé le requérant du délai supplémentaire requis pour la délivrance du permis, il se conforme aux alinéas 1(*a*), *c*) ou *d*), dans les 42 jours de la réception de la demande.

(3) Lorsque l'ingénieur a, selon l'alinéa (1)*c*), avisé le requérant qu'il a ordonné des études ou enquêtes supplémentaires, il se conforme aux alinéas (1)*a*) ou *d*), dans les 12 mois de la réception de la demande.

26. Dans les 3 jours de la réception d'une demande de permis de catégorie B non conforme au présent règlement, l'ingénieur donne au requérant un avis écrit et motivé du rejet de sa demande.

27. Dans les 10 jours de la réception d'une demande de permis de catégorie B conforme au présent règlement, l'ingénieur

a) délivre le permis sous réserve des conditions qu'il peut y énoncer, selon le paragraphe 31(1); ou

b) donne au requérant un avis écrit et motivé du rejet de la demande de permis.

28. The Engineer may, where he deems it necessary, notify an applicant in writing that his application for a Class B Permit will be considered as an application for a Class A Permit.

29. The Engineer shall assign a number to each permit.

Display of Permit

30. Every permittee engaged in a work or an undertaking authorized by a permit shall display

(*a*) an exact copy of the permit, including the conditions thereof, in such manner and at such places as the Engineer may require; and

(*b*) the number assigned to the permit on such articles and equipment, in such manner and at such places as the Engineer may require.

Terms and Conditions of Permits

31. (1) The Engineer may include in any permit terms and conditions respecting

(*a*) the location and the area of territorial lands that may be used;

(*b*) the times at which any work or undertaking may be carried on;

(*c*) the type and size of equipment that may be used in the land use operation;

(*d*) the methods and techniques to be employed by the permittee in carrying out the land use operation;

(*e*) the type, location, capacity and operation of all facilities to be used by the permittee in the land use operation;

(*f*) the methods of controlling or preventing ponding of water, flooding, erosion, slides and subsidences of land;

(*g*) the use, storage, handling and ultimate disposal of any chemical or toxic material to be used in the land use operation;

(*h*) the protection of wildlife and fisheries habitat;

(*i*) the protection of objects and places of recreational, scenic and ecological value;

(*j*) the deposit of security in accordance with section 36;

(*k*) the establishment of petroleum fuel storage facilities;

(*l*) the methods and techniques for debris and brush disposal; and

(*m*) such other matters not inconsistent with these Regulations as the Engineer thinks necessary for the protection of the biological or physical characteristics of the land management zone.

(2) The Engineer may modify any of the terms or conditions included in a permit on receipt of a written request from the permittee that sets out

(*a*) the terms or conditions in the permit that the permittee wishes modified; and

(*b*) the nature of the modification proposed and the reasons therefor.

28. L'ingénieur peut, lorsqu'il le juge nécessaire, aviser le requérant par écrit que sa demande de permis de catégorie B sera considérée comme une demande de permis de catégorie A.

29. L'ingénieur attribue un numéro à chaque permis.

Affichage du permis

30. Un détenteur de permis effectuant un travail ou une activité autorisée par le permis affiche

a) une copie conforme du permis et de ses conditions, de la façon et aux endroits prescrits par l'ingénieur; et

b) le numéro du permis sur les articles et l'équipement, de la façon et aux endroits prescrits par l'ingénieur.

Conditions des permis

31. (1) L'ingénieur peut énoncer dans un permis des conditions concernant

a) l'emplacement et la superficie des terres territoriales pouvant être utilisées;

b) les périodes au cours desquelles un travail ou une activité peut être exécutée;

c) le genre et la taille de l'équipement pouvant être employé lors de l'exploitation des terres;

d) les méthodes et techniques que doit employer le détenteur de permis lors de l'exploitation des terres;

e) le genre, l'emplacement, la capacité et le fonctionnement de toutes les installations que doit utiliser le détenteur de permis lors de l'exploitation des terres;

f) les mesures préventives contre l'accumulation d'eau, l'inondation, l'érosion, les glissements et les affaissements de terrain;

g) l'emploi, l'entreposage, la manipulation et l'élimination des matières chimiques ou toxiques, qui doivent être utilisées au cours de l'exploitation des terres;

h) la protection de la faune terrestre et aquatique;

i) la protection des objets et lieux qui ont une valeur récréative, panoramique et écologique;

j) le dépôt d'une garantie selon l'article 36;

k) la mise sur pied d'installations pour l'entreposage du combustible;

l) les méthodes et techniques pour disposer des débris et broussailles; et

m) d'autres matières, compatibles avec le présent règlement, que l'ingénieur juge nécessaires à la protection des caractéristiques physiques et biologiques de la zone de gestion des terres.

(2) L'ingénieur peut modifier les conditions d'un permis sur réception d'une demande écrite du détenteur, énonçant

a) les conditions du permis que le détenteur désire faire modifier; et

b) la nature et le motif du changement proposé.

(3) Where the Engineer receives a written request from a permittee pursuant to subsection (2), he shall notify the permittee of his decision and the reasons therefor within 10 days of receipt of the request.

(4) Every permit shall set out the period for which it is valid and such period shall be based on the estimated dates of commencement and completion as set out by the permittee in his application, but in no case shall a permit be valid for a period exceeding two years.

(5) On receipt of a written request from a permittee for an extension of the duration of his permit, the Engineer may extend the duration of the permit subject to such conditions not inconsistent with these Regulations as he thinks fit, for such period, not exceeding one year, as he thinks necessary to enable the permittee to complete the land use operation authorized by the permit.

Reports

32. Every permittee shall submit to the inspector or Engineer, in a form and on a date satisfactory to the inspector or Engineer, such reports as are requested by the inspector or Engineer, in order to ascertain the progress of the land use operation.

Final Plan

33. (1) Every permittee shall, within 60 days after the completion of a land use operation or the expiry of his permit, whichever occurs first, submit a final plan in duplicate to the Engineer showing

(*a*) the lands actually subjected to the land use operation;

(*b*) the location of

(i) lines, trails, rights-of-way and cleared areas that were used by the permittee during the land use operation, specifying those that were cleared by the permittee and those that existed before the land use operation began,

(ii) buildings, campsites, air landing strips, air navigation aids, fuel and supply storage sites, waste disposal sites, excavations and other works and places that were constructed or used by the permittee during the land use operation, and

(iii) bridges, dams, ditches, railroads, highways and roads, transmission lines, pipelines, survey lines and monuments, air landing strips, streams and all other features, structures or works that were affected by the land use operation; and

(*c*) the calculations of the area of territorial lands used in the operation.

(2) The final plan submitted to the Engineer pursuant to subsection (1) shall be

(*a*) certified by the permittee or his agent authorized for the purpose as to the accuracy of

(i) locations, distances and areas, and

(ii) the representation of the land use operation; or

(3) Dans les 10 jours de la réception de la demande visée au paragraphe (2), l'ingénieur donne au détenteur de permis un avis motivé de sa décision.

(4) Le permis indique sa période de validité n'excédant pas deux ans et fixée d'après les dates prévues dans la demande de permis pour le commencement et la fin des travaux.

(5) Sur réception d'une demande écrite d'un détenteur de permis pour la prolongation de la durée de validité de son permis, l'ingénieur peut, sous réserve des conditions qu'il juge à propos et non incompatibles avec le présent règlement, accorder la prolongation, n'excédant pas un an, qu'il juge nécessaire à l'achèvement de l'exploitation des terres autorisée par le permis.

Rapports

32. Le détenteur de permis présente à l'inspecteur ou à l'ingénieur, dans la forme et aux dates qu'ils jugent satisfaisantes, les rapports qu'ils demandent afin de s'enquérir de l'avancement de l'exploitation des terres.

Plan définitif

33. (1) Dans les 60 jours de l'achèvement de l'exploitation des terres ou de la date d'expiration de son permis, selon la première éventualité, le détenteur de permis présente à l'ingénieur un plan définitif, en double exemplaire, indiquant

a) les terres effectivement sujettes à l'exploitation;

b) l'emplacement

(i) des lignes de levé, sentiers, servitudes de passage et zones essartées que le détenteur a utilisés au cours de l'exploitation des terres, en précisant ceux qu'il a lui-même essartés et ceux qui existaient déjà au début de l'exploitation,

(ii) des bâtiments, campements, pistes d'atterrissage, aides à la navigation aérienne, endroits d'entreposage des combustibles et des fournitures, dépotoirs, excavations et autres travaux ou endroits que le détenteur a utilisés ou aménagés au cours de l'exploitation des terres, et

(iii) des ponts, barrages, fossés, voies ferrées, routes, chemins, lignes de transmission, pipe-lines, lignes de levé et bornes-signaux, pistes d'atterrissage, cours d'eau et autres éléments, structures ou travaux affectés par l'exploitation des terres; et

c) les calculs de la superficie des terres territoriales utilisées dans l'exploitation.

(2) Le plan définitif présenté à l'ingénieur selon le paragraphe (1) est

a) certifié par le détenteur du permis ou son mandataire autorisé à cette fin, quant à l'exactitude

(i) des emplacements, distances et superficies, et

(ii) de la description de l'exploitation des terres; ou

(*b*) drawn from and accompanied by positive prints of vertical aerial photographs or aerial photomosaics showing the lands subjected to the land use operation.

(3) On receipt of a written request from a permittee for an extension of the time for filing a final plan, the Engineer may extend the time for filing the final plan by not more than 60 days.

(4) The Engineer shall reject the final plan if it does not comply with this section and section 35 and the permittee shall, within three weeks after receipt of written notice from the Engineer of rejection of the plan, submit to the Engineer another final plan that complies with this section and section 35.

(5) Notwithstanding the expiry of a permit or the submission of a final plan, every permittee remains responsible for his obligations arising under the terms and conditions of the permit or under these Regulations until such time as the Engineer issues a letter of clearance for the land use operation.

Determination of Land Use Fee

34. (1) Within 30 days after the Engineer has issued a letter of clearance, the permittee shall calculate the land use fee payable based on the actual area of land used in the operation and the Engineer shall,

(*a*) where the land use fee submitted with the application is greater than the fee so calculated, refund the excess to the permittee; or

(*b*) where the land use fee submitted with the application is less than the fee so calculated, demand, by notice in writing to the permittee, payment of the deficiency.

(2) Where an application for a permit is refused, the land use fee submitted with the application shall be refunded to the applicant.

(3) No application fee shall be refunded.

Land Division and Plans

35. Every preliminary plan or final plan submitted under these Regulations shall

(*a*) be drawn to a scale that clearly shows the lands that the applicant for a permit proposes to use or the permittee has used;

(*b*) show the scale to which the plan is drawn; and

(*c*) show locations

(i) in accordance with sections 5 to 9 of the *Canada Oil and Gas Land Regulations*, or

(ii) by giving the geographic co-ordinates thereof.

Security Deposit

36. (1) In order to ensure that a permittee complies with the terms and conditions of his permit and with these Regulations, the Engineer may include in the permit a condition that the permittee deposit with the Minister a security deposit not exceeding $100,000.

b) tiré et accompagné de clichés positifs de photographies aériennes verticales, montrant les terres sujettes à l'exploitation.

(3) L'ingénieur peut proroger d'au plus 60 jours le délai fixé pour la présentation du plan définitif, s'il reçoit une demande écrite en ce sens, d'un détenteur de permis.

(4) L'ingénieur rejette un plan définitif non conforme à cet article et à l'article 35 et, dans les trois semaines de la réception d'un avis écrit de l'ingénieur à cet effet, le détenteur de permis lui soumet un nouveau plan définitif conforme à cet article et à l'article 35.

(5) Nonobstant l'expiration d'un permis ou la présentation d'un plan définitif, le détenteur de permis est tenu de satisfaire aux obligations énoncées dans le permis ou dans le présent règlement jusqu'au moment où l'ingénieur lui délivre une lettre d'acquittement relative à l'exploitation des terres.

Établissement du droit d'utilisation des terres

34. (1) Dans les 30 jours de la délivrance par l'ingénieur d'une lettre d'acquittement, le détenteur de permis calcule le droit d'utilisation des terres d'après la superficie réelle des terres utilisées et l'ingénieur,

a) lorsque le droit d'utilisation joint à la demande de permis dépasse le montant du droit ainsi calculé, rembourse le détenteur de permis du montant excédentaire; ou

b) lorsque le droit d'utilisation joint à la demande de permis est moindre que le montant du droit ainsi calculé, réclame, par un avis écrit au détenteur de permis, le montant de la différence.

(2) Lorsqu'une demande de permis est rejetée, le droit d'utilisation est remboursé au requérant.

(3) Le droit exigé pour la demande n'est pas remboursable.

Division des terres et plans

35. Un plan provisoire ou définitif présenté selon le présent règlement

a) est établi à une échelle indiquant clairement les terres que le requérant d'un permis se propose d'utiliser ou que le détenteur de permis a utilisées;

b) indique l'échelle du plan; et

c) indique les emplacements

(i) selon les articles 5 à 9 du *Règlement sur les terres pétrolifères et gazifères du Canada*, ou

(ii) en donnant leurs coordonnées géographiques.

Dépôt de garantie

36. (1) Pour s'assurer que le détenteur de permis se conforme aux conditions de son permis et au présent règlement, l'ingénieur peut imposer comme condition qu'il dépose auprès du Ministre une garantie n'excédant pas $100,000.

(2) Where a permit includes a condition requiring a security deposit, the permittee shall not begin the land use operation until a security deposit has been deposited with the Minister.

(3) A security deposit shall be in the form of

(*a*) a promissory note guaranteed by a chartered bank and payable to the Receiver General;

(*b*) a certified cheque drawn on a chartered bank in Canada and payable to the Receiver General;

(*c*) bearer bonds issued or guaranteed by the Government of Canada; or

(*d*) a combination of the securities described in paragraphs (*a*) to (*c*).

(4) A security deposit shall be returned by the Minister when the Engineer has issued a letter of clearance in respect of the land use operation.

(5) Where a permittee has not complied with all the terms and conditions of his permit or with these Regulations, the Minister may retain such part of a security deposit as, in his opinion, the circumstances justify.

(6) Where the Minister retains all or part of a security deposit, the Minister may use all or part of the security deposit forfeited to repair or restore the land that has been damaged as a result of the land use operation.

Letter of Clearance

37. When the Engineer is satisfied that a permittee has complied with all the terms and conditions of his permit and with the provisions of these Regulations, he shall issue a letter of clearance to the permittee.

Duties and Powers of Inspectors

38. (1) It shall be a condition of every permit that the permittee shall permit an inspector, at any reasonable time, to enter any place or premises on territorial lands under the permittee's ownership or occupation, other than a private dwelling, and make such inspections as he thinks necessary to determine whether the terms and conditions of the permit or the provisions of these Regulations are being complied with.

(2) An inspector shall be furnished with a certificate of his appointment as an inspector and on entering any place or premises under subsection (1) shall, if so requested, produce the certificate.

(3) Every person in any place or premises entered by an inspector under subsection (1) shall give the inspector such assistance and furnish him with such information as the inspector may, for the purpose of carrying out his duties under these Regulations, reasonably require.

39. No person shall wilfully obstruct or hinder an inspector in carrying out his duties under these Regulations.

40. No person shall knowingly make a false or misleading statement either orally or in writing to an inspector engaged in carrying out his duties under these Regulations.

(2) Un détenteur de permis ne peut commencer l'exploitation des terres avant d'avoir déposé auprès du Ministre la garantie que le permis exige.

(3) Le dépôt d'une garantie se fait sous forme

a) de billet à ordre garanti par une banque à charte et payable au Receveur général;

b) de chèque visé tiré sur une banque à charte canadienne et payable au Receveur général;

c) d'obligations au porteur émises ou garanties par le gouvernement du Canada; ou

d) d'une combinaison des garanties décrites au alinéas *a*) à *c*).

(4) Le Ministre rembourse le dépôt de garantie lorsque l'ingénieur a délivré une lettre d'acquittement relative à l'exploitation des terres.

(5) Lorsqu'un détenteur de permis ne s'est pas conformé à toutes les conditions de son permis ou au présent règlement, le Ministre peut retenir la partie du dépôt de garantie qu'il croit justifiée dans les circonstances.

(6) Lorsque le Ministre retient, en totalité ou en partie, le dépôt de garantie, il peut l'utiliser pour remettre en bon état le terrain endommagé par l'exploitation des terres.

Lettre d'acquittement

37. Lorsque l'ingénieur est convaincu que le détenteur de permis s'est conformé aux conditions de son permis et au présent règlement, il lui délivre une lettre d'acquittement.

Fonctions et pouvoirs de l'inspecteur

38. (1) Tout permis est sujet au droit d'un inspecteur de pénétrer, à tout moment raisonnable, en un lieu ou dans des locaux situés sur des terres territoriales et dont le détenteur de permis est l'occupant ou le propriétaire, sauf dans une habitation particulière, et de faire les inspections qu'il juge nécessaires pour déterminer si les conditions du permis ou les dispositions du présent règlement sont respectées.

(2) Un inspecteur est pourvu du certificat de sa nomination comme inspecteur et il l'exhibe sur demande lorsqu'il pénètre en un lieu ou dans des locaux selon le paragraphe (1).

(3) Une personne présente en un lieu ou dans des locaux visités par un inspecteur selon le paragraphe (1) lui fournit l'aide et les renseignements qu'il peut raisonnablement exiger pour exécuter ses fonctions selon le présent règlement.

39. Nul ne peut nuire volontairement à un inspecteur dans l'exécution de ses fonctions en vertu du présent règlement.

40. Nul ne peut faire verbalement ou par écrit une déclaration fausse ou trompeuse à un inspecteur exécutant ses fonctions en vertu du présent règlement.

Suspension of a Land Use Operation

41. (1) Where an inspector is of the opinion that a permittee has failed to comply with any term or condition of his permit or any provision of these Regulations, he shall so inform the permittee and, if the default continues, the inspector may give notice to the permittee that if the default is not corrected within the time specified in the notice the inspector may order the suspension of the land use operation or any part thereof.

(2) If a permittee does not correct a default within the time specified in a notice given by an inspector under subsection (1), the inspector may order the permittee to suspend the land use operation or any part thereof and the permittee shall thereupon suspend the land use operation or part thereof until the inspector authorizes the permittee to resume the land use operation.

(3) An inspector shall authorize a permittee to resume a land use operation or part thereof suspended under subsection (2) when the inspector or the Engineer is satisfied that the default has been corrected, unless the permit has in the meantime been cancelled pursuant to section 42.

(4) Where a permittee has been informed of a default pursuant to subsection (1) or an order has been made in respect thereof pursuant to subsection (2), the Engineer may, if the permittee fails to correct the default, take such action as he deems necessary to correct the default.

(5) The costs of any action taken by the Engineer pursuant to subsection (4) may be recovered from the permittee as a debt due to the Crown.

(6) Nothing in this section relieves a permittee from prosecution for any violation of these Regulations.

(7) No order pursuant to subsection (2) shall be made in respect of an oil or gas drilling site between the time of spud-in and the rig release date without the concurrence of the district oil and gas conservation engineer.

Cancellation of Permit

42. (1) Where a land use operation has been suspended pursuant to section 41 and the permittee fails or refuses to correct his default in complying with any terms and conditions of a permit or of any provision of these Regulations, the Engineer may cancel the permit.

(2) The cancellation of a permit under subsection (1) shall not relieve the permittee from any obligation arising under the terms and conditions of the permit or under these Regulations, or from complying with any notice, direction or order given by an inspector or by the Engineer.

Discontinuance of a Land Use Operation

43. (1) Subject to subsection (2), where a permittee wishes to discontinue a land use operation at any time prior to the date of completion set out in the permit, he shall give notice of discontinuance in writing to the Engineer indicating the date upon which he proposes to discontinue the land use operation.

Suspension de l'exploitation des terres

41. (1) Lorsqu'un inspecteur est d'avis qu'un détenteur de permis ne s'est pas conformé à une condition de son permis ou à une disposition du présent règlement, il en informe le détenteur de permis et, si le manquement persiste, il peut l'aviser qu'à défaut de conformité dans le délai précisé dans l'avis, il peut suspendre une partie ou la totalité de l'exploitation des terres.

(2) Si le détenteur de permis ne se conforme pas dans le délai précisé dans l'avis donné par un inspecteur selon le paragraphe (1), l'inspecteur peut lui ordonner de suspendre une partie ou la totalité de l'exploitation des terres, et le détenteur de permis cesse alors l'exploitation jusqu'à ce que l'inspecteur l'autorise à la reprendre.

(3) L'inspecteur autorise un détenteur de permis à reprendre l'exploitation des terres suspendue selon le paragraphe (2) lorsque lui-même ou l'ingénieur s'est assuré de la correction du défaut, à moins que le permis n'ait été annulé entre-temps selon l'article 42.

(4) Si, après avis d'un défaut selon le paragraphe (1) ou réception d'un ordre selon le paragraphe (2), le détenteur de permis n'a pas remédié à la situation, l'ingénieur peut prendre les mesures qu'il juge nécessaires pour y satisfaire.

(5) Les frais des mesures prises par l'ingénieur selon le paragraphe (4) peuvent être recouvrés du détenteur de permis à titre de créance de la Couronne.

(6) Aucune disposition du présent article ne relève un détenteur de permis des poursuites dont il est passible pour violation du présent règlement.

(7) S'il s'agit du forage d'un puits de pétrole ou de gaz, aucun ordre visé au paragraphe (2) ne peut être donné entre la percée de forage et le renvoi de l'équipe, sans l'accord de l'ingénieur de district pour la conservation du pétrole et du gaz.

Annulation du permis

42. (1) Lorsque l'exploitation des terres a été suspendue selon l'article 41 et que le détenteur de permis néglige ou refuse de remédier à son défaut de se conformer aux conditions du permis ou au présent règlement, l'ingénieur peut annuler le permis.

(2) L'annulation d'un permis selon le paragraphe (1) ne dégage pas le détenteur de permis de ses obligations découlant du permis ou du présent règlement, ni de l'obligation de se conformer à un avis, à une directive ou à un ordre reçu d'un inspecteur ou de l'ingénieur.

Cessation d'un travail d'utilisation des terres

43. (1) Sous réserve du paragraphe (2), le détenteur de permis qui désire cesser l'exploitation des terres avant la date d'achèvement visée dans le permis, en donne à l'ingénieur un avis écrit, et lui indique la date prévue de la cessation.

(2) A notice of discontinuance given pursuant to subsection (1) shall be given to the Engineer at least 10 days prior to the proposed date of the discontinuance.

(3) On receipt of a notice of discontinuance, the Engineer shall amend a copy of the permit accordingly and shall forward the amended copy of the permit to the permittee.

(4) The discontinuance of a land use operation pursuant to this section does not relieve the permittee from any obligations arising under the terms and conditions of the permit or under these Regulations up to the time of discontinuance or from complying with any notice, direction or order given by an inspector or by the Engineer.

Assignment

44. (1) On receipt of an application in writing for approval of an assignment of a permit, the Engineer may approve the assignment in whole or in part.

(2) An application for approval of an assignment shall be forwarded to the Engineer at least 10 days prior to the proposed effective date of the assignment and shall include the permit number of the assignor, the name and address of the proposed assignee and particulars of the interests or rights of the assignee to be benefited by the assignment of the permit.

Appeals

45. (1) An applicant for a permit or a permittee may, within 30 days after any decision, direction or order made by the Engineer or an inspector, appeal therefrom to the Minister.

(2) An appeal referred to in subsection (1) shall be by notice in writing setting forth

(*a*) the decision, direction or order appealed from;

(*b*) the relevant circumstances surrounding the giving of the decision, direction or order; and

(*c*) the grounds of the appeal.

(3) A person appealing to the Minister pursuant to subsection (1) shall provide the Minister with such further particulars with respect to the appeal as the Minister may require.

(4) The Minister may, after receipt of an appeal pursuant to subsection (1), set aside, confirm or vary the decision, direction or order appealed from or may remit it to the Engineer for reconsideration with such instructions as the Minister deems proper.

(5) A decision, direction or order appealed from remains in full force and effect pending the decision of the Minister or an officer appointed by him pursuant to subsection (6).

(6) The Minister may authorize a senior officer of the Department of Indian Affairs and Northern Development, other than the Engineer, to exercise the Minister's powers in respect of any appeal pursuant to this section.

Notice

46. (1) Any direction, notice or order given to a permittee under these Regulations shall be sufficiently given if sent by

(2) L'avis de cessation donné selon le paragraphe (1) est donné à l'ingénieur au moins 10 jours avant la date prévue de la cessation.

(3) Sur réception de l'avis de cessation, l'ingénieur modifie une copie du permis en conséquence et la transmet au détenteur de permis.

(4) La cessation de l'exploitation des terres, selon le présent article, ne dégage pas le détenteur de permis de ses obligations découlant du permis ou du présent règlement, jusqu'à la date de cessation, ni de l'obligation de se conformer à un avis, à une directive ou à un ordre reçu d'un inspecteur ou de l'ingénieur.

Cession

44. (1) L'ingénieur peut approuver, en tout ou en partie, une demande écrite d'approbation de la cession d'un permis.

(2) La demande d'approbation de la cession est transmise à l'ingénieur au moins 10 jours avant la date prévue de la cession et indique le numéro de permis du cédant, les nom et adresse du cessionnaire et les détails des intérêts ou droits dévolus au cessionnaire par suite de la cession.

Appels

45. (1) Le requérant d'un permis ou le détenteur de permis peut, dans les 30 jours de la date d'une décision, d'une directive ou d'un ordre, reçus de l'ingénieur ou d'un inspecteur, en appeler au Ministre.

(2) L'appel visé au paragraphe (1) se fait par avis écrit exposant

a) la décision, la directive ou l'ordre faisant l'objet de l'appel;

b) les circonstances pertinentes ayant suscité la décision, la directive ou l'ordre; et

c) les motifs de l'appel.

(3) Quiconque interjette appel au Ministre selon le paragraphe (1) lui fournit les détails supplémentaires pertinents qu'il peut exiger.

(4) Le Ministre peut, après réception d'un appel selon le paragraphe (1), annuler, confirmer ou modifier la décision, la directive ou l'ordre faisant l'objet de l'appel ou le renvoyer à l'ingénieur pour révision avec les directives qu'il juge à propos.

(5) Une décision, une directive ou un ordre faisant l'objet d'un appel reste en vigueur jusqu'à la décision du Ministre ou du fonctionnaire nommé par lui selon le paragraphe (6).

(6) Le Ministre peut autoriser un haut fonctionnaire du ministère des Affaires indiennes et du Nord canadien, sauf l'ingénieur, à exercer les pouvoirs du Ministre concernant un appel selon le présent article.

Avis

46. (1) Une directive, un avis ou un ordre donné à un détenteur de permis selon le présent règlement est valablement

registered mail to, or left at, the permittee's address as stated in his application for the permit and shall be deemed to have been given to the permittee on the date it was so mailed or left.

(2) Where a direction, notice or order is given to a permittee other than in writing, it shall forthwith be confirmed in writing.

SCHEDULE

(s. 22)

FEES PAYABLE FOR A PERMIT

1. Application fee
   (*a*) Class A Permit $20
   (*b*) Class B Permit $10
2. Land use fee where lands proposed to be used as shown on the preliminary plan exceed 2 ha, for each ha of land in excess of 2 ha
   (*a*) $20, south of the 65th parallel of north latitude; and
   (*b*) $12, north of the 65th parallel of north latitude.

donné s'il a été expédié sous pli recommandé ou déposé à l'adresse que le détenteur de permis a déclarée dans sa demande de permis et il est censé avoir été donné au détenteur à la date de son expédition ou de son dépôt.

(2) Une directive, un avis ou un ordre donné verbalement à un détenteur de permis est immédiatement confirmé par écrit.

ANNEXE

(art. 22)

DROITS PAYABLES POUR UN PERMIS

1. Droit de demande de permis
   a) permis de catégorie A $20
   b) permis de catégorie B $10
2. Lorsque les terres qu'on envisage d'utiliser selon le plan provisoire ont une superficie de plus de 2 hectares, pour chaque hectare supplémentaire, un droit d'utilisation
   a) de $20, au sud du 65e parallèle de latitude nord; et
   b) de $12, au nord du 65e parallèle de latitude nord.

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OTTAWA, 1978

Appendix C. Order-in-council PC 1977-1153.

CANADA

PRIVY COUNCIL • CONSEIL PRIVÉ

P.C. 1977-1153
28 April, 1977

WHEREAS the lands described in the schedule hereto are utilized by a variety of wildlife, particularly caribou, which sustain local pursuits of hunting and trapping;

WHEREAS exploration activities by resource development companies are increasing;

AND WHEREAS it is in the public interest that exploration activities be prevented from increasing until investigations can be completed to determine the effects of such activities on the wildlife that sustain hunting and trapping and the importance of such activities to the local native people.

THEREFORE, HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL, on the recommendation of the Minister of Indian Affairs and Northern Development, pursuant to section 19 of the Territorial Lands Act, is pleased hereby, for the reasons set out above, to order the withdrawal, until March 1, 1978, of the lands described in the schedule hereto, including all mines, minerals, easements, servitudes and all other interests in real property, from disposal under the Territorial Lands Act without prejudice to the rights of the holders of recorded mineral claims or prospecting permits in good standing under the Canada Mining Regulations or of permits or leases in good standing under the Canada Oil and Gas Land Regulations or of leases, permits or agreements of sale in good standing under the Territorial Lands Regulations.

CERTIFIED TO BE A TRUE COPY – COPIE CERTIFIÉE CONFORME

P. M. Pitfield

CLERK OF THE PRIVY COUNCIL – LE GREFFIER DU CONSEIL PRIVÉ

SCHEDULE

In the Northwest Territories;

in the District of Keewatin,

all that tract of land being more particularly described as follows:

Commencing at a point on the right bank of the Dubawnt River at approximate latitude 63°50'30" and longitude 100°00';

thence due south to latitude 63°30';

thence due east to longitude 97°30';

thence due south to latitude 62°45';

thence due east to longitude 95°00';

thence due north to latitude 63°00';

thence due east to longitude 94°00';

thence due north to latitude 64°00';

thence due east to longitude 92°30';

thence due north to latitude 64°30';

thence due west to longitude 95°00';

thence due north to latitude 65°00';

thence due west to longitude 97°00';

thence due north to latitude 65°30';

thence due west to longitude 99°30';

thence due south to latitude 64°45';

thence due west to longitude 100°30';

thence due south to latitude 64°00';

thence due east to longitude 100°00';

thence due south to the point of commencement.

...2

SAVING, EXCEPTING AND RESERVING thereout and therefrom all lands lying within the boundaries of the Thelon Game Sanctuary;

SAVING, EXCEPTING AND RESERVING thereout and therefrom all lands lying within a radius of twenty-five (25) miles from the northeast corner of Lot 196 in the Settlement of Baker Lake as said Lot 196 is shown on plan of survey of record number 55826 in the Canada Lands Surveys Records at Ottawa, a copy of which is filed in the Land Titles Office for the Northwest Territories Land Registration District at Yellowknife under number 567.

Appendix D. Federal Court Order T-1628-78.

In the Federal Court of Canada

Court No. T-1678-78

BETWEEN

THE HAMLET OF BAKER LAKE, BAKER LAKE HUNTERS AND TRAPPERS ASSOCIATION, et al.

Plaintiffs

— and —

THE MINISTER OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT, et al

Defendants

REASONS FOR ORDER

PLACE OF HEARING: Toronto, Ontario

DATE OF HEARING: April 18, 1978

COUNSEL:

A.E. Golden, Esq.
D. Estrin, Esq. for the Plaintiffs

G.W. Ainslie, Q.C.
L.P. Chambers, Esq.
D.S. Sgayias, Esq. for the Defendants

SOLICITORS OF RECORD:

Messrs. Golden,
Levinson
Barristers & Solicitors
Toronto, Ontario for the Plaintiffs

Roger Tassé, Q.C.
Deputy Attorney General
of Canada
Ottawa, Ontario for the Defendants

BETWEEN:

Federal Court of Canada
Trial Division

T-1628-78

THE HAMLET OF BAKER LAKE, BAKER LAKE HUNTERS AND TRAPPERS ASSOCIATION, INUIT TAPIRISAT OF CANADA, MATTHEW KUNUNGNAT, SIMON TOOKOOME, HAROLD QARLITSAQ, PAUL UTA'NAAQ, ELIZABETH ALOOQ, TITUS ALLUQ, JONAH AMITNAK, FRANCIS KALURAQ, JOHN KILLULARK, MARTHA TICKIK, EDWIN EVE, NORMAN ATTUNGALA, WILLIAM NOAH, MARION PATTUNGUYAQ, SILAS KENALOGAK, GIDEON KUUK, OVID KINNOWATNER, STEVEN NIEGO, MATTHEW INNAKATSIK, ALEX IGLOOKYOUAK, TITUS NIEGO, DEBRA NIEGO, STEPHEN KAKIMAT, THOMAS ANIRNGNIQ, MARGARET AMAROOK, JAMES UKPAQAQ, JIMMY TAIPANAK, MICHAEL AMAROOK, ANGELA KRASHUDLUAQ, MARGARET NARKJANERK, JOHN NARKJANERK, ELIZABETH TUNNUQ, MARJORIE TARRAQ, HANNA KILLULARK, WILLIAM K2 SCOTTIE, EDWIN NIEGO, MARTHA TALEROOK, MARY IKSIKTAARYUK, BARNABAS OOSUAQ, NANCY SEVOQA, JANET IKUUTAQ, MARJORIE TUTTANNUAQ, LUKE TUNGNAQ, JAMES KINGAQ, MADGE KINGAQ, LUCY TUNGUAQ, HATTIE AMITNAK, MAGDALENE UKPATIKY, WILLIAM UKPATIKU, PAUL OOKOWT, LOUIS OKLAGA, H. AVATITUUQ, LUK ARNGNA'NAAQ, MARY KAKIMAT, SAMSON ARNAUYOK, EFFIE ARNALUAK, THOMAS KAKIMAT, MATHEW NANAUQ, JOHN NUKIK, BILL MARTEE, MARTHA NUKIK, SILAS PUTURI AQTUQ, DAVID MANNIK, THOMAS IKSIRAQ, ROBERT INUKPAK, JOEDEE JOEDEE, JOHN AUAALA, HUGH TULURIALIK, THOMAS N. MANNIK, SILAS QIYNK, BARNABUS PERYOUAR, BETTY PERYOUAR, JOAN SCOTTIE, OLIVE INNAKATSIK, SARAH AMITNAK, ALEX AMITNAK, VERA AUAALA, GEORGE TATANIQ, MARY TAGOONA, JAMES TERIQANIAK, JOHN IQSAKITUQ, SILAS KALLUK, HANNAH KUUK, HUGH UNGUNGAI, CELINA UTA'NAAQ, MOSES NAGYUGALIK, MARY IQAAT, LOUIS TAPATAI, HAROLD ETEGOYOK, SALLY IGLOOKYOUAK, MARJORIE AQIGAAQ, MATTHEW AQIGAAQ, MONA QIYUARYUK, WINNIE OWINGAYAK, SAMSON QUINANGNAQ, ELIZABETH QUINANGNAQ, HATTIE ATTUTUVAA, PAUL ATTUTUVAA, MARION ANGUHALLUQ, LUK ANGUHALLUQ, RUTH TULURIALIK, IRENE KALURAQ, CHARLIE TOOLOOKTOOK, THOMAS TAPATAI, ELIZABETH TAPATAI, B. SCOTTIE, MARY KUTTICQ, JACOB MARRIQ, LUCY KOWNAK, A. TAGOONA, CHARLES TARRAQ, VIVIEN JOEDEE,

Plaintiffs

- and -

THE MINISTER OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT, THE ENGINEER DESIGNATED BY THE MINISTER OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT PURSUANT TO SECTION 4 OF THE TERRITORIAL LAND USE REGULATIONS, SOR/77-210, AS AMENDED, THE DIRECTOR, NORTHERN NON-RENEWABLE RESOURCES BRANCH OF THE DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT, THE MINING RECORDER AND THE DEPUTY MINING RECORDER FOR THE ARCTIC AND HUDSON BAY MINING DISTRICT, AND THE ATTORNEY GENERAL OF CANADA,

Defendants

REASONS FOR ORDER

The Plaintiffs seek an interlocutory injunction prohibiting the issue of prospecting permits, the grant of mining leases and the recording of claims under the Canada Mining Regulations[1] and the issue of permits under the Territorial Land Use Regulations[2] in respect of mining exploration and related activities within the Baker Lake Study Area (hereafter "the area"). The area, comprising some 70,000 square kilometers around Baker Lake, N.W.T., is defined in the schedule to P.C. 1977-1153 which withdrew the area from disposal under the *Territorial Lands Act*[3]. P.C. 1977-1153, which was made under authority of section 19 of the Act, effected the withdrawal until March 1, 1978; the withdrawal was extended to April 1, 1978 by P.C. 1978-510, to April 14, 1978 by P.C. 1978-944 and to April 24, 1978 by P.C. 1978-1199. By the Baker Lake Prospecting Permits Regulations[4], the issue of a number of prospecting permits is directed immediately upon expiration of the withdrawal and exploration crews are assembled at Churchill, Manitoba, to act upon them. If they are not able to move into the area within a matter of days, the opportunity for exploratory work during the coming summer will be lost.

The withdrawal of the area was dictated by concern for the effect of mineral exploration activities on the wildlife, particularly caribou, of the area that sustains the hunting and trapping activities of the Inuit of Baker Lake, where some 130 Inuit hunter families now reside. During the period of withdrawal a study was carried out and the various extensions of the withdrawal gave an opportunity for consultation on its results between the Plaintiffs, on the one hand, and the Defendant Minister and his officials,

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1 P.C. 1977-3149, SOR/77-900.

2 P.C. 1977-532, SOR/77-210.

3 R.S.C. 1970, c.T-6.

4 P.C. 1978-945, SOR/78-305.

on the other.[5] They did not agree on the appropriate course of action; the Statement of Claim herein issued April 17, 1978 and this motion was brought on the following day. Circumstances dictated that *viva voce* evidence be received. Four of the individual Plaintiffs, Barnabus Paryouar, Matthew Kunungnat, William Noah and Lucy Tunguaq testified through an interpreter. Three experts, Robert J. Williamson, an anthropologist, Dr. Milton M.R. Freeman, an ecologist, and Dr. Peter J. Usher, a geographer, were called by the Plaintiffs, as were William Tagoona and Dougald Brown, who are presently employed by the Plaintiff, Inuit Taparisat of Canada, at Ottawa. Dr. Maurice J. Ruel, Director of the Northern Environmental Protection and Renewable Resources Branch of the Department of Indian and Northern Affairs testified for the Defendants. In addition, the Plaintiffs tendered the affidavit of William Noah in support of the application to call *viva voce* evidence. The Defendants tendered affidavits of John B. Kemper, John M. Patterson and E.M.R. Cotterill, all departmental officials.

The Defendants admitted, for the purposes of this motion, most of the allegations of fact in the Statement of Claim. They reserve the right to take a different position on all facts so admitted at later stages in the proceedings. The relevant affidavit and *viva voce* evidence is not directly contradictory on any material point and, in the result for purposes of this application, the disputed issue of fact is the nature and extent of the effect of mining and exploration activities on the caribou, not that they have, inevitably, some effect. It is, of course, the activities that will ensue upon the issue of permits or leases and the recording of claims that concerns the Plaintiffs, not such issue or recording *per se* and I have had in mind throughout

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[5] The study, entitled "Effects of Exploration and Development in the Baker Lake Area", dated February 1978, prepared for the Department of Indian Affairs and Northern Development by Interdisciplinary Systems of Winnipeg, Manitoba, is in evidence and will be referred to as "the Baker Lake Study".

the interests of those poised at Churchill, Manitoba, as well as the general public interest, in weighing the Defendants' position.

This action is based on an assertion of aboriginal rights. On the facts alleged there is a serious question to be tried. If there is substance to the Inuits' right to the continued enjoyment of land used by them and their ancestors from time immemorial, it is difficult to see how that substance does not, to some extent, embrace their traditional activities of hunting and fishing for the indigenous wildlife.[6] That, in the case of the Baker Lake Inuit who have no access to sea mammals, would appear to pertain particularly to caribou. The Baker Lake Study reports that, in bald economic terms, the caribou harvest provided over 30% of the 1977 real income of Baker Lake households and over 42% of the 1977 real income of heads of households; the comparable figures for the total fur, game and fish harvest were, respectively, over 44% and 54%. There is evidence of exceptionally strong psychological and physiological dependence of the Baker Lake Inuit on the caribou hunt and harvest. Although a substantial portion of the Plaintiffs' evidence was directed to this point, it is unnecessary to review it further. The existence of a special relationship between Inuit and caribou is undisputed and, indeed, for purposes of this application, admitted.

While the harvest of wildlife other than caribou, i.e. fish, geese and arctic fox, is raised in the motion and referred to in the Baker Lake Study, it was not developed to any extent in evidence or argument. I propose to say nothing further about it but to hold that the evidence does not support an interim order in respect thereof. The crucial question is the consequence of the issue of prospecting and land use permits and the grant of mining leases on the Inuit's caribou harvest.

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[6] *vid.* *Calder v A.G. of B.C.* [1973] S.C.R. 313, particularly per Judson, J., at p. 328.

Caribou have very poor eyesight but keen hearing and sense of smell. They are not ordinarily afraid of man and will approach and even pass through areas of human activity without ill effect in the absence of human aggression. They are, however, very sensitive during the calving period which, in the area, extends from May 15 to June 30 and the July post-calving period. Caribou exist in critical balance with a most ungenerous physical environment. Disturbance of the natural cycle can lead to serious results. During the calving and post-calving periods the consequences are premature calving and interruption of the cow-calf relationship, with resultant calf mortality, and delay or diversion of adult animals in their migration with a serious possibility of unreadiness for winter. The Baker Lake Study has identified the calving grounds within the area and the locales in which caribou usually forage during the post-calving period.

In their migrations, the caribou populations are generally widely dispersed throughout the area. They do, however, tend to concentrate at a number of traditional major water crossings. These, too, have been identified by the Baker Lake Study.

Mining exploration activity involves extensive use of helicopters and other low flying aircraft, drilling and blasting, all of which are identified by the Baker Lake Study as constituting disturbances of high severity and short-term duration to the caribou. When one considers the activities likely to ensue on the grant of a mining lease, all disturbances become long-term and permanent roads and low flying aircraft are assessed as disturbances of high severity. Camp and facility sites, *per se*, are regarded as being of moderate severity; however, while caribou are not ordinary afraid of man, the evidence indicates that the reverse is not always true, at least of white men who appear sometimes to fear what concentrations of migrating caribou may do to them or their facilities and equipment and to react aggressively.

There are two major caribou populations that calve in the area: the Kaminuriak and Beverly, estimated to number about 40,000 and 124,000 animals respectively. A third population has recently taken to wintering there. The Beverly population remains stable while the Kaminuriak is declining at a rate that raises the possibility of its extinction within a decade. Pre-1977 exploration activity was permitted athwart two of the Kaminuriak's traditional major water crossings. The Defendants suggest wolves and over-hunting are mainly responsible for the decline but the harvest figures in evidence do not obviously support the over-hunting proposition. The weight of evidence leads to the conclusion that exploration and mining activity is incompatible with the natural use by caribou of their habitat at times when and places where they are particulary sensitive and at places where they congregate in large numbers.

Until recently the approach of the courts to an application for an interlocutory injunction has been to require the plaintiff to show a strong *prima facie* case or probability that injunctive relief will be granted after trial of the action. That approach was disapproved by the House of Lords in *American Cyanamid v Ethicon Ltd.*[7]

> Your Lordship should in my view take this opportunity of declaring that there is no such rule. The use of such expressions as "a probability", "a prima facie case", or "a strong prima facie case" in the context of the exercise of a discretionary power to grant an interlocutory injunction leads to confusion as to the object sought to be achieved by this form of temporary relief. The court no doubt must be satisfied that the claim is not frivolous or vexatious; in other words, that there is a serious question to be tried.
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> ...
>
> So unless the material available to the court at the hearing of the application for an interlocutory injunction fails to disclose that the plaintiff has any real prospect of succeeding in his claim for a permanent injunction at the trial, the court should go on to consider whether the balance of convenience lies in favour of granting or refusing the interlocutory relief

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[7] [1975] A.C. 396, per Lord Diplock at 407ff.

that is sought.

> As to that, the governing principle is that the court should first consider whether, if the plaintiff were to succeed at the trial in establishing his right to a permanent injunction, he would be adequately compensated by an award of damages for the loss he would have sustained as a result of the defendant's continuing to do what was sought to be enjoined between the time of the application and the time of the trial. If damages in the measure recoverable at common law would be adequate remedy and the defendant would be in a financial position to pay them, no interlocutory injunction should normally be granted, however strong the plaintiff's claim appeared to be at that stage. If, on the other hand, damages would not provide an adequate remedy for the plaintiff in the event of his succeeding at the trial, the court should then consider whether, on the contrary hypothesis that the defendant were to succeed at the trial in establishing his right to do that which was sought to be enjoined, he would be adequately compensated under the plaintiff's undertaking as to damages for the loss he would have sustained by being prevented from doing so between the time of the application and the time of the trial. If damages in the measure recoverable under such an undertaking would be an adequate remedy and the plaintiff would be in a financial position to pay them, there would be no reason upon this ground to refuse an interlocutory injunction.
>
> It is where there is doubt as to the adequacy of the respective remedies in damages available to either party or to both, that the question of balance of convenience arises. It would be unwise to attempt even to list all the various matters which may need to be taken into consideration in deciding where the balance lies, let alone to suggest the relative weight to be attached to them. These will vary from case to case.
>
> Where other factors appear to be evenly balanced it is a counsel of prudence to take such measures as are calculated to preserve the status quo. If the defendant is enjoined temporarily from doing something that he has not done before, the only effect of the interlocutory injunction in the event of his succeeding at the trial is to postpone the date at which he is able to embark upon a course of action which he has not previously found it necessary to undertake; whereas to interrupt him in the conduct of an established enterprise would cause much greater inconvenience to him since he would have to start again to establish it in the event of his succeeding at the trial.

This approach commends itself to me as it has to both the Ontario High Court[8] and Divisional Court[9] and, it appears also, to the

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[8] *Labelle et al. v Ottawa Real Estate Board et al.* (1977) 16 O.R. (2nd) 502.

[9] *Yule Inc. v Atlantic Pizza Delight Ltd. et al.* (1977) 17 O.R. (2nd) 505.

Supreme Court of Alberta[10] and the Court of Appeal of Nova Scotia.[11]

There is a serious question to be tried and, taken in all its dimensions, the injury to the Plaintiffs, if a right to a permanent injunction were established at the trial, could not be adequately compensated by an award of damages. I can identify no injury which the Defendants, *per se*, will suffer if an interim injunction were to issue. As to the mining companies, their damages would be readily measurable in damages although, in the peculiar circumstances, it may be questioned that an action to recover those damages from the Plaintiffs could succeed and, if it did, whether the Plaintiffs could satisfy it. There is doubt as to the adequacy of the respective remedies in damages available to those who may be injured if an interim injunction issues and those who may be injured if it does not. I think the matter ought to be approached as though the mining companies were parties. I have no hesitation in finding that the balance of convenience falls plainly on the side of granting an interim injunction. The minerals, if there, will remain; the caribou, presently there, may not.

That said, the evidence does not support the grant of an injunction as broadly cast as that sought. Dr. Ruel stated in evidence that it is the Defendant Engineer's intention, as a matter of policy under section 31 of the Territorial Land Use Regulations, to impose certain conditions on permits to be issued for the area. Those conditions, reflecting the recommendations of the Baker Lake Study, would render the permits invalid within 1.8 kilometers of the identified major water crossings and within the identified calving grounds between May 15 and June 30 and the identified

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[10] *Abouna v Foothills Hospital Board* (1975) 65 D.L.R. (3rd) 337.

[11] *Aspotogan v Laurence* (1976) 14 N.S.R. (2nd) 501.

post-calving areas during July in any year. I am satisfied that such conditions would, by and large, afford the necessary protection until the trial of the action. There are, however, apparent anomolies and gaps.

The Plaintiffs are entitled to protection deriving its legal effect from something more substantial than a declaration of policy. This observation is not a reflection on the good faith and intentions of the Engineer but policy can change in unforseen circumstances. There is no evidence upon which to dispute or endorse the 4.8 kilometer distance chosen and I, therefor, accept it. However, if it is the appropriate distance, I fail to see why it ought not also apply to the calving grounds and post-calving areas and that activities be prohibited for that distance around them, as well as within them, during the prescribed periods. There are levels of activity allowed by prospecting permits which do not require land use permits, yet the Canada Mining Regulations do not appear to provide for the imposition of such conditions. They should apply as well to prospecting permits as to land use permits. Much of the apprehended injury involves helicopters and low flying aircraft, such activity must be prohibited over the prescribed areas. Finally, I am persuaded that permitted activity ought not proceed beyond exploration to mining prior to the trial of the action.

Because of the urgency of the matter an interim injunction reflecting the foregoing reasons issued on April 24. I trust that the delay in publication of the reasons therefor has not proved an inconvenience. Costs will be in the cause.

P. M. Mahoney

J.F.C.C.

Ottawa, Canada

April 27, 1978.

Appendix E. Territorial Lands Act.

CHAPTER T-6

An Act respecting Crown lands in the Yukon Territory and the Northwest Territories

CHAPITRE T-6

Loi concernant les terres de la Couronne dans le territoire du Yukon et les territoires du Nord-Ouest

SHORT TITLE

Short title

1. This Act may be cited as the *Territorial Lands Act*. R.S., c. 263, s. 1.

TITRE ABRÉGÉ

Titre abrégé

1. La présente loi peut être citée sous le titre : *Loi sur les terres territoriales*. S.R., c. 263, art. 1.

INTERPRETATION

Definitions

2. In this Act

"Crown" «Couronne»

"Crown" means Her Majesty in right of Canada;

"dues" «droits»

"dues" means all ground rents, royalties, duties, fees, rates, charges or other moneys payable by any person to the Crown under and by virtue of a lease, licence or permit;

"grant" «concession»

"grant" means letters patent under the Great Seal, a notification and any other instrument by which territorial lands may be granted in fee simple or for an equivalent estate;

"judge of the Court" «juge...»

"judge of the Court" means, in relation to any matter arising in the Northwest Territories, a judge of the Territorial Court, and, in relation to any matter arising in the Yukon Territory, a judge of the Territorial Court of the Yukon Territory;

"land" «terre»

"land" includes mines, minerals, easements, servitudes and all other interests in real property;

"Minister" «Ministre»

"Minister" means the Minister of Indian Affairs and Northern Development;

"notification" «notification»

"notification" means a direction in a form prescribed by the Governor in Council pursuant to paragraph 19(*j*) and issued pursuant to subsection 5(1);

"permit" «permis»

"permit" means a valid and subsisting permit

INTERPRÉTATION

Définitions

2. Dans la présente loi

«bois» "timber"

«bois» signifie les arbres sur pied ou tombés, les billes et les madriers, les pièces de bois équarries, les planches et le bois en grume, et tout autre produit des arbres scié ou taillé;

«concession» "grant"

«concession» signifie des lettres patentes délivrées sous le grand sceau, une notification et tout autre acte par lequel des terres territoriales peuvent être concédées en propriété libre ou à un titre équivalent;

«Couronne» "Crown"

«Couronne» désigne Sa Majesté du chef du Canada;

«droits» "dues"

«droits» signifie le loyer de la terre, les redevances, droits, honoraires, taux, charges ou autres deniers payables par toute personne à la Couronne sous l'autorité et en vertu d'un bail, d'une licence ou d'un permis;

«juge de la Cour» "judge..."

«juge de la Cour» désigne, à l'égard de toute question surgissant dans les territoires du Nord-Ouest, un juge de la Cour territoriale et, à l'égard de toute question surgissant dans le territoire du Yukon, un juge de la Cour territoriale du territoire du Yukon;

«Ministre» "Minister"

«Ministre» désigne le ministre des Affaires indiennes et du Nord canadien;

«notification» "notification"

«notification» signifie un ordre en la forme prescrite par le gouverneur en conseil en

issued under this Act;

"territorial lands" «terres territoriales»

"territorial lands" means lands in the Northwest Territories or in the Yukon Territory that are vested in the Crown or of which the Government of Canada has power to dispose;

"timber" «bois»

"timber" means trees standing or fallen, logs and bolts, cants, boards and lumber, and any other sawn or shaped product of trees. R.S., c. 263, s. 2; 1953-54, c. 4, s. 12; 1957, c. 36, s. 1; 1966-67, c. 25, s. 40; 1967-68, c. 32, s. 1.

conformité de l'alinéa 19*j*) et émis en conformité du paragraphe 5(1);

«permis» "permit"

«permis» signifie un permis valide et en vigueur délivré sous l'autorité de la présente loi;

«terre» "land"

«terre» comprend les mines, minéraux, servitudes et tous autres intérêts dans des biens réels;

«terres territoriales» "territorial..."

«terres territoriales» signifie les terres dans les territoires du Nord-Ouest ou dans le territoire du Yukon qui sont dévolues à la Couronne ou dont le gouvernement du Canada a le pouvoir de disposer. S.R., c. 263, art. 2; 1953-54, c. 4, art. 12; 1957, c. 36, art. 1; 1966-67, c. 25, art. 40; 1967-68, c. 32, art. 1.

APPLICATION

APPLICATION

Application

3. (1) Subject to subsection (2), this Act applies only to territorial lands that are under the control, management and administration of the Minister.

Application

3. (1) Sous réserve du paragraphe (2), la présente loi ne s'applique qu'aux terres territoriales qui sont sous le contrôle, la gérance et l'administration du Ministre.

Idem

(2) Sections 5, 8 to 12 and paragraph 19(*j*) apply to territorial lands the right to the beneficial use or to the proceeds of which is appropriated to the Yukon Territory or the Northwest Territories by section 45 of the *Yukon Act* or section 46 of the *Northwest Territories Act*, as the case may be.

Idem

(2) Les articles 5, 8 à 12 et l'alinéa 19*j*) s'appliquent aux terres territoriales pour lesquelles le droit à la jouissance bénéficiaire ou aux produits est attribué au territoire du Yukon ou aux territoires du Nord-Ouest par l'article 45 de la *Loi sur le Yukon* ou l'article 46 de la *Loi sur les territoires du Nord-Ouest*, selon le cas.

Idem

(3) Nothing in this Act shall be construed as limiting the operation of the *Yukon Quartz Mining Act*, the *Yukon Placer Mining Act*, the *Dominion Water Power Act* or the *National Parks Act*. 1967-68, c. 32, s. 2.

Idem

(3) Rien dans la présente loi ne doit s'entendre comme limitant l'application de la *Loi sur l'extraction du quartz dans le Yukon*, de la *Loi sur l'extraction de l'or dans le Yukon*, de la *Loi sur les forces hydrauliques du Canada* ou de la *Loi sur les parcs nationaux*. 1967-68, c. 32, art. 2.

SALE OR LEASE OF TERRITORIAL LANDS

VENTE OU LOCATION DES TERRES TERRITORIALES

Authorizing sale, lease, etc.

4. Subject to this Act, the Governor in Council may authorize the sale, lease or other disposition of territorial lands and may make regulations authorizing the Minister to sell, lease or otherwise dispose of territorial lands subject to such limitations and conditions as the Governor in Council may prescribe. R.S., c. 263, s. 4.

Autorisation de la vente, location, etc.

4. Sous réserve de la présente loi, le gouverneur en conseil peut autoriser la vente, la location ou autre aliénation des terres territoriales, et établir des règlements autorisant le Ministre à vendre, céder à bail ou autrement aliéner des terres territoriales, sous réserve des restrictions et conditions que peut prescrire le gouverneur en conseil. S.R., c. 263, art. 4.

Issue of notification

5. (1) A notification may be issued to a registrar directing him to issue a certificate of

Délivrance de la notification

5. (1) Une notification peut être délivrée à un registrateur, lui ordonnant d'émettre un

title to a person named therein in respect of territorial lands described therein that are within the registration district administered by the registrar.

Execution of notification

(2) A notification pursuant to subsection (1) shall be signed and issued,

(*a*) in the case of territorial lands described in subsection 3(1), by the Minister, the Deputy Minister or any other officer of his Department authorized in writing for that purpose by the Minister; and

(*b*) in the case of territorial lands described in subsection 3(2), by the Commissioner of the Yukon Territory if the lands are in the Yukon Territory or by the Commissioner of the Northwest Territories if the lands are in the Northwest Territories.

Effect of issue of notification

(3) The issue of a notification pursuant to subsection (1) has like force and effect as a grant of territorial land made by letters patent under the Great Seal.

Notification to set out nature of grant

(4) A notification shall set out the nature of the estate thereby granted and any easements, rights or other interests excepted or reserved therefrom.

Interpretation

(5) In this section the expressions "registrar" and "certificate of title" have the meanings assigned by the *Land Titles Act*. 1967-68, c. 32, s. 3.

Prohibition

6. No territorial lands suitable for muskrat farming shall be sold. R.S., c. 263, s. 5; 1955, c. 17, s. 1.

Limitation on sale

7. (1) Not more than one hundred and sixty acres of territorial lands may be sold to any one person without the approval of the Governor in Council.

Limitation on lease

(2) Subject to subsection (3), not more than six hundred and forty acres of territorial lands may be leased to any one person without the approval of the Governor in Council.

Other limitation

(3) Where territorial lands are hay lands or lands suitable for grazing or muskrat farming, not more than six thousand four hundred acres may be leased to any one person without the approval of the Governor in Council. R.S., c. 263, s. 6.

certificat de titre, à une personne nommée dans la notification, relativement aux terres territoriales y décrites qui sont situées dans les limites de la circonscription d'enregistrement que le registrateur administre.

Signature de la notification

(2) Une notification visée au paragraphe (1) doit être signée et délivrée,

a) dans le cas de terres territoriales décrites au paragraphe 3(1), par le Ministre, le sous-ministre ou tout autre fonctionnaire de son ministère que le Ministre autorise, par écrit, à cette fin; et

b) dans le cas de terres territoriales décrites au paragraphe 3(2), par le commissaire du territoire du Yukon si les terres sont situées dans le territoire du Yukon ou par le commissaire des territoires du Nord-Ouest si les terres sont situées dans les territoires du Nord-Ouest.

Effet de la délivrance de la notification

(3) La délivrance d'une notification en conformité du paragraphe (1) a la même valeur légale et le même effet que la concession d'une terre territoriale effectuée par lettres patentes délivrées sous le grand sceau.

La notification doit énoncer la nature de la concession

(4) Une notification doit énoncer la nature des biens concédés ainsi que toutes servitudes, tous droits ou autres intérêts qui en sont exclus ou qui y sont réservés.

Interprétation

(5) Au présent article, les expressions «registrateur» et «certificat de titre» ont le sens qui leur est attribué par la *Loi sur les titres de biens-fonds*. 1967-68, c. 32, art. 3.

Interdiction

6. Ne doit être vendue aucune terre territoriale propre à l'élevage du rat musqué. S.R., c. 263, art. 5; 1955, c. 17, art. 1.

Limitation des ventes

7. (1) Il ne peut être vendu plus de cent soixante acres de terres territoriales à une même personne sans l'approbation du gouverneur en conseil.

Limitation des locations

(2) Sous réserve du paragraphe (3), il ne peut être cédé à bail plus de six cent quarante acres de terres territoriales à une même personne sans l'approbation du gouverneur en conseil.

Autre limitation

(3) Si les terres territoriales sont des terres à foin ou des terres propres au pâturage ou à l'élevage du rat musqué, il ne peut en être cédé à bail plus de six mille quatre cents acres à une même personne sans l'approbation du gouverneur en conseil. S.R., c. 263, art. 6.

MINING RIGHTS

Leasing of mining rights

8. The Governor in Council may make regulations for the leasing of mining rights in, under or upon territorial lands and the payment of royalties therefor, but such regulations shall provide for the protection of and compensation to the holders of surface rights. R.S., c. 263, s. 7.

DROITS MINIERS

Location de droits miniers

8. Le gouverneur en conseil peut établir des règlements concernant la location de droits miniers dans des terres territoriales, à leur surface ou dans leur sous-sol, et le paiement de redevances à cet égard; mais ces règlements doivent assurer la protection et l'indemnisation des détenteurs des droits de surface. S.R., c. 263, art. 7.

RESERVATION FROM GRANTS

Reservation

9. Unless otherwise ordered by the Governor in Council, a strip of land one hundred feet in width, measured from ordinary high water mark or from the boundary line, as the case may be, shall be deemed to be reserved to the Crown out of every grant of territorial lands, where the land extends

(*a*) to the sea or an inlet thereof;

(*b*) to the shore of any navigable water or an inlet thereof; or

(*c*) to the boundary line between the Yukon Territory and Alaska, or between the Yukon Territory and the Northwest Territories, or between the Yukon Territory or the Northwest Territories and the Province of Manitoba, Saskatchewan, Alberta or British Columbia. R.S., c. 263, s. 8.

RÉSERVE SUR LES CONCESSIONS

Réserve

9. A moins que le gouverneur en conseil n'en ordonne autrement, une bande de terre de cent pieds de largeur, mesurée à partir de la ligne ordinaire des hautes eaux ou de la ligne frontière, selon le cas, est censée réservée à la Couronne sur toute concession de terres territoriales, lorsque le terrain s'étend

a) jusqu'à la mer ou un bras de mer;

b) jusqu'au rivage de toute eau navigable ou jusqu'à une anse d'une eau navigable; ou

c) jusqu'à la ligne de démarcation entre le territoire du Yukon et l'Alaska, ou entre le territoire du Yukon et les territoires du Nord-Ouest, ou entre le territoire du Yukon ou les territoires du Nord-Ouest et les provinces de Manitoba, de Saskatchewan, d'Alberta ou de Colombie-Britannique. S.R., c. 263, art. 8.

Reservation of bed of body of water

10. Unless the grant contains a provision to the contrary, the bed, below ordinary high water mark, of a body of water shall be deemed to be reserved to the Crown out of every grant of territorial lands where the lands border a body of water. R.S., c. 263, s. 9.

Réserve du lit des étendues d'eau

10. A moins que la concession ne contienne une disposition contraire, le lit, au-dessous de la ligne ordinaire des hautes eaux, d'une étendue d'eau est censé réservé à la Couronne sur toute concession de terres territoriales où le terrain borde une étendue d'eau. S.R., c. 263, art. 9.

Other reservations

11. There shall be deemed to be reserved to the Crown out of every grant of territorial lands

(*a*) all mines and minerals whether solid, liquid or gaseous that may be found to exist within, upon or under such lands, together with the right to work the same and for this purpose to enter upon, use and occupy the said lands or so much thereof and to such extent as may be necessary for the working and extraction of the said minerals; and

(*b*) all rights of fishery and fishing and occupation in connection therewith upon or

Autres réserves

11. Sur toute concession de terres territoriales, sont censés réservés à la Couronne:

a) la totalité des mines et des minéraux, solides, liquides ou gazeux, dont l'existence peut être révélée dans, sur ou sous ces terres, ainsi que le droit de les exploiter et, à cette fin, d'entrer sur ces terres, de les utiliser et de les occuper selon l'étendue et dans la mesure nécessaires pour l'exploitation et l'extraction de ces minéraux; et

b) tous droits de pêche et de pêcherie et d'occupation à cet égard sur ces terres, autour de ces terres ou sur des étendues avoisinantes. S.R., c. 263, art. 10.

around or adjacent to such lands. R.S., c. 263, s. 10.

Grant does not convey water rights

12. Unless the grant or other document establishing a grant, lease or other disposition of territorial lands expressly states the contrary, no grant, lease or other disposition of territorial lands conveys any exclusive right, privilege, property or interest with respect to any lake, river, stream or other body of water, within, bordering or passing through the lands. R.S., c. 263, s. 11.

La concession ne comporte aucun droit sur les eaux

12. A moins que la concession ou autre document établissant une concession, un bail ou une autre aliénation de terres territoriales ne déclare expressément le contraire, aucune concession, aucun bail ou autre aliénation de terres territoriales ne comporte un droit, un privilège, un titre de propriété ou un intérêt exclusif à l'égard d'un lac, d'une rivière, d'un ruisseau ou d'une autre étendue d'eau à l'intérieur, en bordure ou au travers des terres. S.R., c. 263, art. 11.

TIMBER

BOIS

Cutting timber

13. No person shall cut timber on territorial lands unless he is the holder of a permit. R.S., c. 263, s. 12.

Couper du bois

13. Personne ne doit abattre du bois sur des terres territoriales à moins de détenir un permis. S.R., c. 263, art. 12.

Timber regulation

14. The Governor in Council may make regulations

(*a*) respecting the issue of permits to cut timber and prescribing the terms and conditions thereof, including the payment of ground rent, and exempting any person or class of persons from the provisions of section 13;

(*b*) providing for the suspension or cancellation of permits for violation of any of the terms or conditions thereof or for violation of any provision of this Act or the regulations;

(*c*) prescribing fees for the issue of permits and prescribing the dues to be paid in respect of timber cut pursuant to a permit;

(*d*) providing for the making of returns by holders of permits;

(*e*) providing for the recovery of dues including the taking of security therefor and the seizure, forfeiture and sale of timber; and

(*f*) providing for the seizure, forfeiture and sale of timber unlawfully cut on territorial lands. R.S., c. 263, s. 13.

Règlements concernant l'abattage

14. Le gouverneur en conseil peut établir des règlements

a) concernant la délivrance de permis pour abattre du bois et prescrivant les termes et conditions de ces permis, y compris le paiement d'un loyer de la terre, et exemptant quelque personne ou une catégorie de personnes des dispositions de l'article 13;

b) décrétant la suspension ou l'annulation des permis pour cause de violation d'une de leurs conditions ou pour cause de violation de quelque disposition de la présente loi ou des règlements;

c) prescrivant les droits à payer pour la délivrance des permis et les redevances à payer pour le bois abattu conformément à un permis;

d) prévoyant la présentation de rapports par les porteurs de permis;

e) prévoyant le recouvrement des droits, y compris les garanties à prendre pour assurer ces recouvrements, ainsi que la saisie, la confiscation et la vente du bois; et

f) stipulant la saisie, la confiscation et la vente du bois illégalement abattu sur des terres territoriales. S.R., c. 263, art. 13.

SLIDES, STREAMS AND LAKE FRONTS

GLISSOIRES, COURS D'EAU ET LACS

Works for the movement of timber

15. Unless the grant or other document establishing a grant, lease or other disposition of territorial lands expressly states the contrary, no grant, lease or other disposition

Ouvrages pour la descente du bois

15. A moins que la concession ou autre document établissant une concession, bail ou autre aliénation de terres territoriales ne déclare expressément le contraire, aucune

of territorial lands

(*a*) conveys any right, title or interest in or to any slide, dam, pier, boom or other work constructed, for the purpose of facilitating the movement of timber, prior to the date of the grant, lease or other disposition of land;

(*b*) affects the unimpeded right to use or repair the works referred to in paragraph (*a*); or

(*c*) affects the unimpeded right to use, for the purpose of facilitating the movement of timber, all streams, lakes, bodies of water, portage roads or trails past rapids, falls or other natural obstacles or connecting bodies of water, or any land that has to be used in connection with the foregoing. R.S., c. 263, s. 14.

concession, aucun bail ou autre aliénation de terres territoriales

a) ne comporte un droit, un titre ou un intérêt à quelque glissoire, digue, jetée, barrage flottant ou autre ouvrage construit, pour faciliter la descente du bois, antérieurement à la date de la concession, du bail ou autre aliénation de terres;

b) n'atteint la libre faculté d'utiliser ou de réparer les ouvrages mentionnés à l'alinéa *a*); ou

c) n'atteint la libre faculté d'utiliser, pour faciliter la descente du bois, tout cours d'eau, lac, étendue d'eau, chemin ou sentier de portage contournant des rapides, des chutes ou d'autres obstacles naturels ou reliant des étendues d'eau, ainsi que tout terrain devant être utilisé pour les objets susdits. S.R., c. 263, art. 14.

TRESPASS ON TERRITORIAL LANDS

Summons to vacate or show cause

16. (1) Where under this Act the right of any person to use, possess or occupy territorial lands has been forfeited or where, in the opinion of the Minister, a person is wrongfully or without lawful authority, using, possessing or occupying territorial lands and he continues to use, possess or occupy or fails to deliver up possession of the lands, an officer of the Department of Indian Affairs and Northern Development authorized by the Minister for that purpose may apply to a judge of the Court for a summons directed to such person calling upon such person

(*a*) to forthwith vacate or abandon and cease using, possessing or occupying such lands; or

(*b*) within thirty days after service of the summons upon him to show cause why an order or warrant should not be made for his removal from the said lands.

ENTRÉE SANS AUTORISATION SUR LES TERRES TERRITORIALES

Sommation de quitter les lieux ou d'exposer ses raisons

16. (1) Si le droit de quelque personne d'utiliser, de posséder ou d'occuper des terres territoriales a été retiré sous l'autorité de la présente loi, ou si, de l'avis du Ministre, une personne utilise, possède ou occupe illégalement ou sans autorisation légitime des terres territoriales, et qu'elle continue d'utiliser, de posséder ou d'occuper ces terres, ou si elle n'en livre pas possession, un fonctionnaire du ministère des Affaires indiennes et du Nord canadien, autorisé par le Ministre à cette fin, peut s'adresser à un juge de la Cour afin d'obtenir que soit destinée à cette personne une sommation lui enjoignant:

a) d'évacuer ou abandonner immédiatement ces terres et de cesser aussitôt de les utiliser, posséder ou occuper; ou

b) dans les trente jours de la signification de la sommation, d'exposer les raisons à l'encontre de l'émission d'une ordonnance ou d'un mandat décrétant son expulsion de ces terres.

Warrant for removal

(2) Where a summons has been served under subsection (1) and within thirty days from the service thereof the person named in the summons has not removed from, vacated or ceased using, possessing or occupying the said lands or has not shown cause why he should do so, a judge of the Court may make an order or warrant for that person's summary

Mandat de quitter

(2) Lorsqu'une sommation a été signifiée sous l'autorité du paragraphe (1) et que, dans les trente jours de la signification de la sommation, la personne y nommée n'a pas quitté lesdites terres, ne les a pas évacuées ou n'a pas cessé de les utiliser, posséder ou occuper, ou qu'elle n'a pas produit de motifs qui la justifient, un juge de la Cour peut

removal from the lands.

émettre une ordonnance ou un mandat décrétant que cette personne soit expulsée sommairement des terres.

Persons executing warrant

(3) A warrant made under subsection (2) shall be executed by a sheriff, bailiff, constable or other person to whom it is delivered for that purpose and he has all the powers, rights, immunities and privileges enjoyed by a sheriff, constable or other peace officer in the execution of his duty.

(3) Un mandat émis sous l'autorité du paragraphe (2) doit être exécuté par un shérif, un huissier, un constable ou une autre personne à laquelle il est délivré à cette fin, et cette personne a tous les pouvoirs, droits, immunités et privilèges que possède un shérif, un constable ou un autre agent de la paix dans l'exécution de ses fonctions.

Personnes exécutant le mandat

Execution of warrant

(4) A person to whom an order or warrant is addressed shall forthwith remove the person named therein from such lands and all members of his family, employees, servants, labourers, tenants, or other persons employed by or living with such person or his tenants.

(4) Celui à qui une ordonnance ou un mandat est adressé doit immédiatement expulser de ces terres l'individu qui y est nommé, ainsi que tous les membres de sa famille, ses employés, serviteurs, ouvriers, locataires ou autres personnes employées par lui ou vivant avec lui, ou employées par ses locataires ou vivant avec eux.

Exécution du mandat

Service of summons or warrant

(5) Service of a summons or warrant under this section shall be made by leaving a copy with an adult person found on the said lands and by posting up another copy in a conspicuous place on the lands, or where no adult person is found on the lands, by posting up copies in two conspicuous places thereon. R.S., c. 263, s. 15; 1957, c. 36, s. 2; 1966-67, c. 25, s. 40.

(5) La signification d'une sommation ou d'un mandat sous l'autorité du présent article doit être opérée en remettant une copie de la sommation ou du mandat à une personne adulte qui se trouve sur les terres et en y affichant une autre copie en un endroit bien en vue, ou, s'il ne s'y trouve aucune personne adulte, en y affichant des copies en deux endroits bien en vue. S.R., c. 263, art. 15; 1957, c. 36, art. 2; 1966-67, c. 25, art. 40.

Signification de la sommation ou du mandat

Offence and penalty for trespassing

17. A person who remains on territorial lands or returns thereto or assumes any possession or occupancy thereof after having been ordered to vacate them under section 16 or after having been removed therefrom under that section is guilty of an offence and is liable upon summary conviction to a fine of not more than three hundred dollars or to imprisonment for a term not exceeding six months, or to both. R.S., c. 263, s. 16.

17. Quiconque demeure sur des terres territoriales ou y retourne ou en prend possession ou occupation après avoir reçu l'ordre de les évacuer sous l'autorité de l'article 16, ou après en avoir été expulsé sous l'autorité de cet article, est coupable d'une infraction et passible, sur déclaration sommaire de culpabilité, d'une amende d'au plus trois cents dollars ou d'un emprisonnement ne dépassant pas six mois, ou à la fois de l'amende et de l'emprisonnement. S.R., c. 263, art. 16.

Entrée illégale et peine

Appeal

18. The order or judgment of a judge of the Court in any action or proceedings under this Act is subject to an appeal by a party to such action or proceedings in the same manner as any other order or judgment of a judge of the Court. 1957, c. 36, s. 3.

18. L'ordonnance ou le jugement d'un juge de la Cour dans une action ou dans les procédures exercées sous l'autorité de la présente loi est sujet à appel par une partie dans cette action ou ces procédures, de la même manière que l'est toute autre ordonnance ou tout autre jugement d'un juge de la Cour. 1957, c. 36, art. 3.

Appel

POWERS OF THE GOVERNOR IN COUNCIL

Powers of Governor in Council

19. The Governor in Council may

(*a*) upon setting forth the reasons for withdrawal in the order, order the withdrawal of any tract or tracts of territorial lands from disposal under this Act;

(*b*) set apart and appropriate territorial lands for the sites of places of public worship, burial grounds, schools, market places, gaols, court houses, town halls, public parks or gardens, hospitals, harbours, landings, bridge sites, airports, landing fields, railway stations, town-sites, historic sites or for other public purposes and, at any time before the issue of a grant, alter or revoke such appropriations;

(*c*) order that grants or leases for a nominal consideration be made of the lands appropriated under paragraph (*b*) and that there be expressed in any grant or lease the trusts and uses to which the territorial lands granted or leased thereby are subject;

(*d*) set apart and appropriate such areas or lands as may be necessary to enable the Government of Canada to fulfil its obligations under treaties with the Indians and to make free grants or leases for such purposes, and for any other purpose that he may consider to be conducive to the welfare of the Indians;

(*e*) set apart and appropriate territorial lands for use as forest experimental areas, national forests, game preserves, game sanctuaries, bird sanctuaries, public shooting grounds, public resorts or for any other similar public purpose;

(*f*) authorize the acquisition by any railway, power company or pipe line company, upon and subject to such terms and conditions as may be deemed proper, of a right-of-way for a road bed, for transmission lines, or for pipe lines through territorial lands together with such other territorial lands as may be deemed necessary for stations, station grounds, workshops, buildings, yards, pumps, tanks, reservoirs or other appurtenances in connection therewith;

(*g*) divide territorial lands into mining districts, land districts and timber districts;

(*h*) make regulations or orders with respect to any question affecting territorial lands under which persons designated in the regulations or orders may inquire into a

POUVOIRS DU GOUVERNEUR EN CONSEIL

Pouvoirs du gouverneur en conseil

19. Le gouverneur en conseil peut

a) en en énonçant les raisons dans l'ordonnance, décréter que toute parcelle ou toutes parcelles de terres territoriales soient soustraites à l'aliénation prévue par la présente loi;

b) mettre à part et affecter des terres territoriales à des emplacements réservés à l'exercice du culte, à des champs de sépulture, à des écoles, emplacements de marché, prisons, palais de justice, hôtels de ville, parcs ou jardins publics, hôpitaux, havres, terrains de débarquement, emplacements de ponts, aéroports, champs d'atterrissage, stations de chemins de fer, emplacements de villes, sites historiques ou pour d'autres fins publiques et, à tout moment avant l'attribution d'une concession, modifier ou révoquer ces affectations;

c) ordonner que des concessions ou des baux pour une considération nominale soient faits de terres affectées en vertu de l'alinéa *b*) et que toutes concessions ou baux mentionnent expressément les usages auxquels sont assujetties les terres territoriales concédées ou louées par ces concessions ou baux;

d) mettre à part et affecter les étendues de territoire ou les terres qui peuvent être nécessaires afin de permettre au gouvernement du Canada de remplir ses obligations d'après les traités conclus avec les Indiens et d'accorder des concessions ou des baux gratuits pour ces objets, ainsi que pour tout autre objet qu'il peut considérer comme devant contribuer au bien-être des Indiens;

e) mettre à part et affecter des terres territoriales pour servir de régions d'expérimentation forestière, de forêts nationales, de parcs à gibier, de refuges de gibier, de refuges d'oiseaux, de champs publics de tir, de lieux publics de séjour, et pour autres semblables fins publiques;

f) autoriser l'acquisition, par tout chemin de fer, toute compagnie d'énergie ou toute compagnie de pipe-line, aux termes et conditions qui peuvent être jugés convenables, d'une emprise de la superstructure, des lignes de transmission ou des pipe-lines, à travers des terres territoriales ainsi que d'autres terres territoriales qui peuvent être jugées nécessaires à des stations, à l'aména-

question affecting territorial lands and may, for the purposes of such inquiry, summon and bring before them any person whose attendance they consider necessary to the inquiry, examine such person under oath, compel the production of documents and do all things necessary to provide a full and proper inquiry;

(*i*) prescribe a tariff of fees for copies of maps, plans, field notes, documents, papers and other records pertaining to territorial lands, and for the preparation of documents evidencing a sale, lease or other disposition of territorial lands and for the registration of any documents pertaining to territorial lands;

(*j*) prescribe the form of the notification that may be issued pursuant to section 5 and the fee for the issue thereof; and

(*k*) make such orders and regulations as are deemed necessary to carry out the purposes and provisions of this Act. R.S., c. 263, s. 18; 1967-68, c. 32, s. 4.

gement d'espaces requis pour des stations, à des ateliers, édifices, cours, pompes, citernes, réservoirs ou autres appartenances s'y rapportant;

g) diviser des terres territoriales en districts miniers, en districts cultivables et en districts boisés;

h) établir des règlements ou ordonnances relativement à toute question qui touche aux terres territoriales, en vertu desquelles les personnes désignées dans ces règlements ou ordonnances peuvent s'enquérir d'une question concernant les terres territoriales et peuvent, pour les objets de pareille enquête, sommer et appeler devant elles toute personne dont elles considèrent la présence comme nécessaire à l'enquête, interroger cette personne sous serment, l'obliger à produire des documents, et elles peuvent faire tout ce qui est nécessaire pour compléter une enquête convenable;

i) prescrire un tarif d'honoraires pour des copies de cartes, de plans, de carnets de notes, de documents, de pièces écrites ou d'autres registres se rapportant aux terres territoriales et pour la préparation de documents attestant une vente, location ou autre aliénation de terres territoriales et pour l'enregistrement de tout document se rapportant à des terres territoriales;

j) prescrire la forme de la notification qui peut être délivrée en conformité de l'article 5 et le droit à payer pour sa délivrance; et

k) établir les ordonnances et règlements jugés nécessaires pour la réalisation des objets et l'application des dispositions de la présente loi. S.R., c. 263, art. 18; 1967-68, c. 32, art. 4.

GENERAL

Effect of receipt

20. A receipt for payment made upon the filing of an application to purchase or lease land, does not entitle the person making the payment to take, occupy or use the land described in the receipt. R.S., c. 263, s. 19.

DISPOSITIONS GÉNÉRALES

Effet de l'acquit

20. Un acquit de paiement fait lors de la production d'une demande d'achat ou de location de terres n'autorise pas la personne qui fait le paiement à prendre, occuper ou utiliser la terre désignée dans l'acquit. S.R., c. 263, art. 19.

Execution of documents

21. Any lease, agreement, licence, permit, or notice of cancellation issued or made pursuant to this Act and any consent to any assignment of any such lease, agreement, licence or permit may be executed on behalf of the Crown by the Minister, the Deputy

Souscription de documents

21. Toute location, convention, licence, permis ou avis d'annulation, émis ou fait conformément à la présente loi, ainsi que tout consentement à quelque cession d'une pareille location, convention, licence ou permis, peut être établi au nom de la Couronne par le

Minister or by any other officer of the Department authorized in writing for the purpose by the Minister. R.S., c. 263, s. 20.

Ministre, le sous-ministre ou par tout autre fonctionnaire du ministère, que le Ministre autorise par écrit à cette fin. S.R., c. 263, art. 20.

Interest

22. Whenever interest is payable under or by virtue of this Act or for or on account of any claim, matter or thing arising under any provision of this Act, the rate of interest shall be five per cent per annum, whether that interest is payable under the terms of any sealed or unsealed instrument or not. R.S., c. 263, s. 21.

Intérêts

22. Lorsque des intérêts sont exigibles sous l'autorité ou en vertu de la présente loi, ou à l'égard ou au compte d'une créance, d'une question ou d'une affaire découlant de quelque disposition de la présente loi, le taux d'intérêt est de cinq pour cent par année, que les intérêts soient ou non exigibles d'après les termes de quelque instrument scellé ou non scellé. S.R., c. 263, art. 21.

Forms, etc.

23. The Minister may prescribe forms of leases, agreements of sale, licences and other documents required for use under this Act, but not including instruments issued under the Great Seal. R.S., c. 263, s. 22.

Formules, etc.

23. Le Ministre peut prescrire des formules de location, de convention de vente, de licence et d'autres documents dont la présente loi requiert l'usage, mais sans comprendre les instruments émis sous le grand sceau. S.R., c. 263, art. 22.

Crown employees

24. (1) No officer or employee of or under the Government of Canada shall, directly or indirectly, in his own name or in that of any other person, purchase or acquire any territorial land or any interest therein, nor shall he be interested as shareholder or otherwise in any corporation or company purchasing or acquiring such lands or any interest therein except by or under authority of an order of the Governor in Council.

Employés de la Couronne

24. (1) Est interdit à tout fonctionnaire ou employé du gouvernement du Canada, ou en relevant, d'acheter ou d'acquérir, directement ou indirectement, en son propre nom ou au nom de qui que ce soit, des terres territoriales ou un intérêt y afférent, ou de posséder quelque intérêt, à titre d'actionnaire ou à quelque autre titre, dans une corporation ou compagnie qui achète ou acquiert des terres de ce genre ou un intérêt y afférent, si ce n'est en vertu ou aux termes d'une ordonnance du gouverneur en conseil.

Liable to dismissal

(2) Every person who violates this section is liable to summary dismissal on the order of the Minister, but his dismissal does not affect the right that any person may have to bring against him any civil or criminal action. R.S., c. 263, s. 23.

Passible de destitution

(2) Tout employé qui contrevient au présent article est passible de destitution sommaire sur l'ordre du Ministre; mais sa destitution ne peut léser le droit qu'une personne peut avoir d'intenter contre lui une action au civil ou au criminel. S.R., c. 263, art. 23.

Offences and penalties

25. Every person who violates any provision of the Act or the regulations is guilty of an offence and liable on summary conviction to a fine not exceeding three hundred dollars or to imprisonment for a term not exceeding three months, or to both, and every person who unlawfully cuts timber on territorial lands, in addition to any other penalty, is liable to a penalty not exceeding three dollars in respect of each tree unlawfully cut. R.S., c. 263, s. 24.

Contraventions et peines

25. Quiconque contrevient à quelque disposition de la présente loi ou des règlements est coupable de contravention et passible, sur déclaration sommaire de culpabilité, d'une amende n'excédant pas trois cents dollars ou d'un emprisonnement d'au plus trois mois, ou à la fois de l'amende et de l'emprisonnement; et quiconque abat illégalement du bois sur des terres territoriales, en sus de toute autre peine, est passible d'une amende n'excédant pas trois dollars pour chaque arbre illégalement abattu. S.R., c. 263, art. 24.

QUEEN'S PRINTER FOR CANADA © IMPRIMEUR DE LA REINE POUR LE CANADA
OTTAWA, 1970

Appendix F. Caribou Protection Measures, 1978.

1978 CARIBOU PROTECTION MEASURES (KAMINURIAK AND BEVERLY HERDS)

Interim Injunction applies:

in that area under Order of the Federal Court T-1628-78

---

31 (1) (m) - Matters Not Inconsistent with the Regulations

1. The Permittee shall not conduct any activity between May 15 and June 30 of any year within those areas designated as "Primary Calving Areas" on the map certified by the Engineer as the "Caribou Protection Map 1978" and annexed to this Land Use Permit. — PRIMARY CALVING AREAS

2. The Permittee shall not conduct any activity between June 30 and July 31 of any year within that area designated as "Primary Post Calving Area" on the map certified by the Engineer as the "Caribou Protection Map 1978" and annexed to this Land Use Permit. — PRIMARY POST CALVING AREAS

3. The Permittee shall not conduct any activity at any time of any year within 4.8 kilometres (3 miles) of any "Major Crossing Site" as designated on the map certified by the Engineer as the "Caribou Protection Map 1978" and annexed to this Land Use Permit. — MAJOR CROSSING SITES

4. The Permittee shall observe any order given by an Inspector to immediately cease all take offs and landings associated with any activity when interference with a Caribou herd may result. — AIRCRAFT

5. (a) The Permittee shall not conduct any activity between May 15 and June 30 of any year within those areas designated as "Area of Spring Migration" on the map certified by the Engineer as the "Caribou Protection Map 1978" and annexed to this Land Use Permit. — AREA OF SPRING MIGRATION

   (b) Notwithstanding (a) above, the Permittee may obtain written permission from the Land Use Inspector to work within the "Area of Spring Migration" such permission being subject to evidence supplied by a Departmental Wildlife Biologist engaged in aerial monitoring that no disturbance to caribou will result from the intended activity because of the particular route the caribou have chosen that season or that the pregnant cows have passed the intended area of operation ten days prior to the date of commencement of the activity.

6. Prior to the commencement of the land use operation, the Permittee shall provide to the Inspector the following information on all aircraft to be used during the operation:

   (a) Aircraft type and model

   (b) Aircraft registration number

   (c) Owner company

   (d) Period of use

Appendix G. Caribou Protection Measures. 1979.

1979 CARIBOU PROTECTION MEASURES (KAMINURIAK AND BEVERLY HERDS)

Interim Injunction applies:

in that area under Order of the Federal Court T-1628-78

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31 (1) (m) - Matters Not Inconsistent with the Regulations

1. (a) The Permittee shall not conduct any activity between May 15 and July 31 within the Caribou Protection Area "A" depicted on the map certified by the Engineer as the "Caribou Protection Map 1979", annexed to this Land Use Permit. — CARIBOU PROTECTION AREA "A"

(b) On cessation of activities on or before May 15, the Permittee will either:

(i) remove all personnel and equipment or;

(ii) consolidate all equipment and facilities at an approved location or locations and remove all personnel from the zone who are not required for the maintenance and protection of the camp facilities and equipment.

(c) The Permittee may commence or resume activities prior to July 31 within those parts of Area "A" released by the Land Use Inspector for the reason that caribou cows are not expected to use those parts for calving or post calving (note 2).

2. (a) Permittee operations within any part of Caribou Protection Area "B", depicted on the map certified by the Engineer as the "Caribou Protection May 1979", annexed to this Land Use Permit, will be suspended by the Land Use Inspector between May 15 and July 31, if he determines that caribou cows are using that part for calving or post calving (note 2). — CARIBOU PROTECTION AREA "B"

(b) In the event of a suspension of operations in Area "B", the Permittee will carry out an approved contingency plan (note 1) that implements either course of action as outlined in 1(b) above.

3. (a) During the period of spring migration of caribou between April 20 and May 15, the Permittee shall not locate any of his operations so as to block or cause significant diversion to the migration. — CARIBOU PROTECTION MIGRATION

(b) The Permittee shall cease activities that would interfere with spring migration through the area of operations, such as drilling or movement of equipment, until the migrating caribou cows have passed.

(c) In the event that caribou cows calve somewhere along the route of spring migration permittee operations within the area used for calving will be suspended by the Land Use Inspector between May 15 and June 30.

..../2

4. The Permittee shall not conduct any activity at any time of any year within 4.8 kilometres of any "Major Crossing Site", as designated on the map certified by the Engineer as the "Caribou Protection Map 1979", and annexed to this Land Use Permit. MAJOR CROSSING SITES

5. The Permittee shall observe any order given by an Inspector to immediately cease all take offs and landings associated with any activity when interference with a caribou herd may result. AIRCRAFT TAKE OFFS AND LANDINGS

6. Prior to the commencement of the land use operation, the Permittee shall provide to the Inspector the following information on all aircraft to be used during the operation: AIRCRAFT INFORMATION

   (a) Aircraft type and model;

   (b) Aircraft registration number;

   (c) Owner company;

   (d) Period of use.

NOTE

1. The contingency plan will form part of the application and will include:

   (a) The total number of persons and equipment to be evacuated from camps.

   (b) The arrangements for and the type of aircraft to be used for evacuation.

   (c) The maximum number of aircraft trips required to complete the evacuation.

   (d) The maximum amount of time required to complete the evacuation.

   (e) The location to which personnel will be removed.

   (f) What security is required to maintain the evacuated camp.

   (g) The number and frequency of flights, if any, to support security personnel.

   (h) The type of aircraft used for support of security personnel.

2. The Land Use Inspectors decision will be made on the advice of a wildlife biologist.

3. Flight restrictions at all times of year shall be established in cooperation with the Ministry of Transport. They will be made known through the Land Use Permit system to operators by correspondence.

Appendix H. Caribou Protection Measures. 1980.

1980 CARIBOU PROTECTION MEASURES (KAMINURIAK AND BEVERLY HERDS)

1. (a) The Permittee shall not, without approval, conduct any activity between May 15 and July 31 within the Caribou Protection Areas depicted on the map certified by the Engineer as the "Caribou Protection Map 1980", annexed to this Land Use Permit. — CARIBOU PROTECTION AREAS

   (b) A Permittee may, upon approval by the Land Use Inspector, operate within the said Caribou Protection Areas beyond the May 15 deadline set out in 1(a), provided that when monitoring information indicates that caribou cows are approaching the area of operation, the Permittee will implement 1(c).

   (c) On cessation of activities pursuant to 1(a) or 1(b), the Permittee will remove all personnel from the zone who are not required for the maintenance and protection of the camp facilities and equipment.

   (d) The Permittee may commence or resume activities prior to July 31 within those parts of the Caribou Protection Areas released by the Land Use Inspector for the reason that caribou cows are not expected to use those parts for calving or post-calving (note 1).

2. (a) In the event that caribou cows calve outside of the Caribou Protection Areas, the Permittee shall suspend operations within the area(s) occupied by cows and/or cows and calves between May 15 and June 30. — CARIBOU PROTECTION GENERAL

   (b) In the event that caribou cows and calves are present outside of the Caribou Protection Areas, the Permittee shall suspend the following operations within the area(s) occupied by cows and calves between July 1 and July 31.

      (i) airborne geophysics surveys at an altitude of less than 300 metres above ground level.

      (ii) slinging of fuel or equipment by helicopter at an altitude of less than 300 metres above ground level.

3. (a) During spring migration of caribou, the Permittee shall not locate any operations so as to block or cause substantial diversion to the migration. — CARIBOU PROTECTION

   (b) The Permittee shall cease activities that may interfere with spring migration, such as airborne geophysics surveys or movement of equipment, until the migrating cows have passed.

4. The Permittee shall not, between May 15 and September 1, conduct any operation within 5 km of any "Major Crossing Site" as outlined on the map certified by the Engineer as the "Caribou Protection Map 1980", and annexed to this Land Use Permit. — CARIBOU CROSSINGS

5. The Permittee shall not, between May 15 and September 1, construct any camp or conduct any blasting within 10 km of any "Major Crossing Site" as outlined on the map certified by the Engineer as the "Caribou Protection Map 1980" and annexed to this Land Use Permit.

NOTE

1. The Land Use Inspector's decision will be made on the basis of the existing caribou monitoring information.

2. Concentrations of caribou should be avoided by low level aircraft at all times.

Appendix I. Transport Canada Information Circular 0/1/78.

Transport Canada Air / Transports Canada Air

GENERAL

0/1/78
25th May

INFORMATION CIRCULAR

CONSERVATION OF CARIBOU HERDS - BAKER LAKE AREA

(Pending publication in the Northern Supplement)

Aircraft have been observed low flying over herds of caribou in the Baker Lake area. The results of such actions could have serious consequences in reducing the animal population. Caribou are still the chief source of food and clothing for a significant proportion of the natives in Northern Canada. Between 1967 and 1978, the Beverley and Kaminuriak herds dropped from approximately 222,000 to 166,000, a decline of 25 percent in eleven years. Mammalogists of the Fish and Wildlife Service, Government of the Northwest Territories, are carrying out studies to try to determine the reason for the reduction and to ensure that populations are not adversely affected by increased activity in the north.

Flight of aircraft at low altitude over caribou herds may cause considerable harm. It could increase accidents resulting in broken bones. The exhausted and disorganized animals would be more susceptible to attack by wolves; their feeding is interrupted and normal herd movement and reproduction functions may be seriously disrupted. It is considered necessary that all pilots flying aircraft in the north country realize the importance of the caribou in relation to the native welfare and the co-operation of all is requested in eliminating any action which might lead to unnecessary losses of these valuable animals.

To minimize disturbance to barren land caribou and other wildlife, The Minister of Indian and Northern Affairs wishes to warn pilots of the necessity to observe the following recommended flight rules when flying their aircraft within the caribou protection areas, as outlined below and as depicted on the accompanying sketch.

All pilots should maintain an altitude of not less than 1,000 feet AGL over Spring migration areas between May 15 and June 30.

All pilots should maintain an altitude of not less than 2,000 feet AGL over calving areas between May 15 and June 30.

All pilots should maintain an altitude of not less than 2,000 feet AGL over post calving areas between July 1 and July 31.

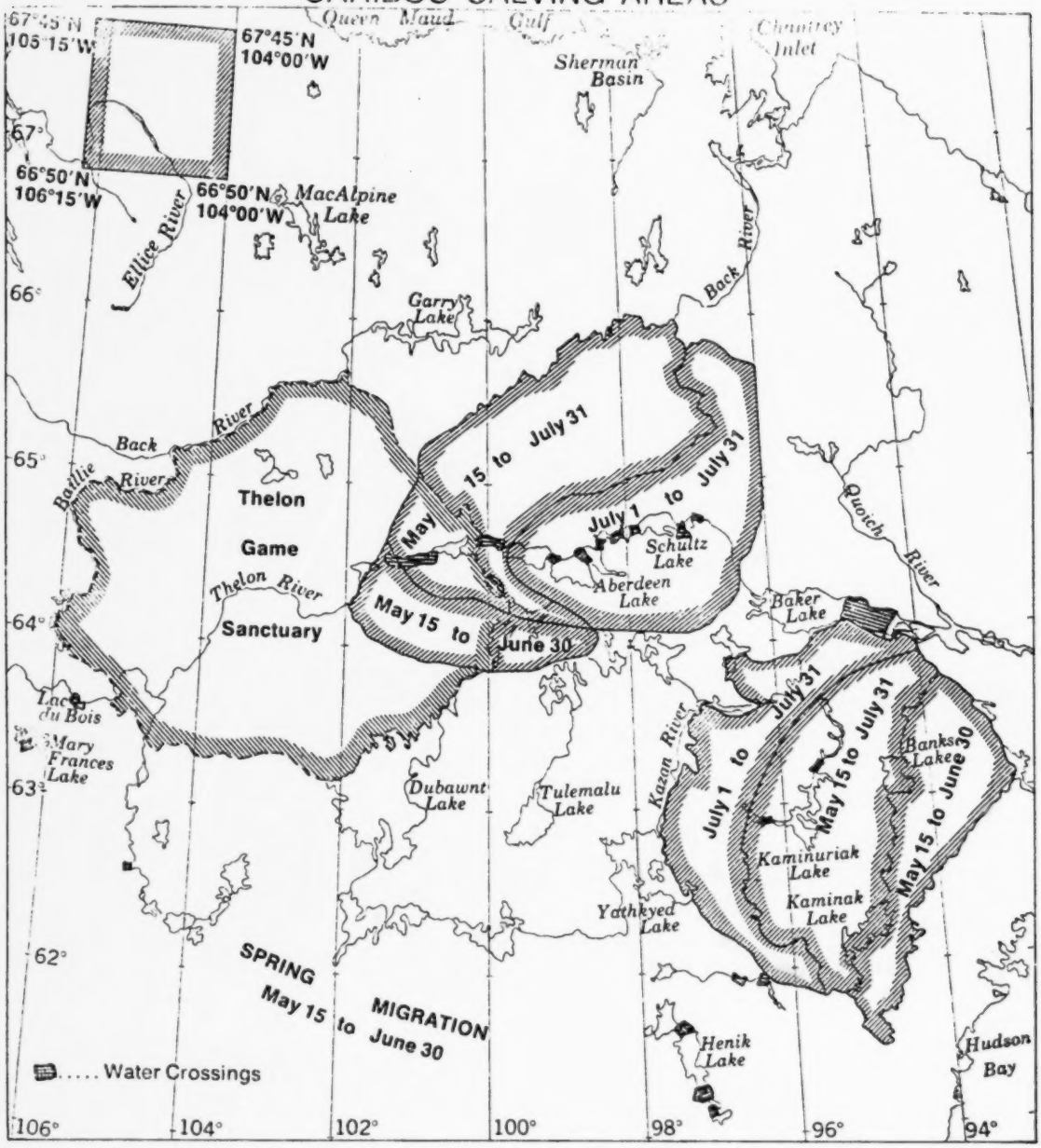
All pilots should maintain an altitude of not less than 2,000 feet over water crossing areas at all times.

At all other times, pilots should maintain a minimum altitude of 1,000 feet AGL near groups of caribou to avoid any possible disturbance of the herds.

P.E. Arpin,
Director General, Civil Aeronautics.

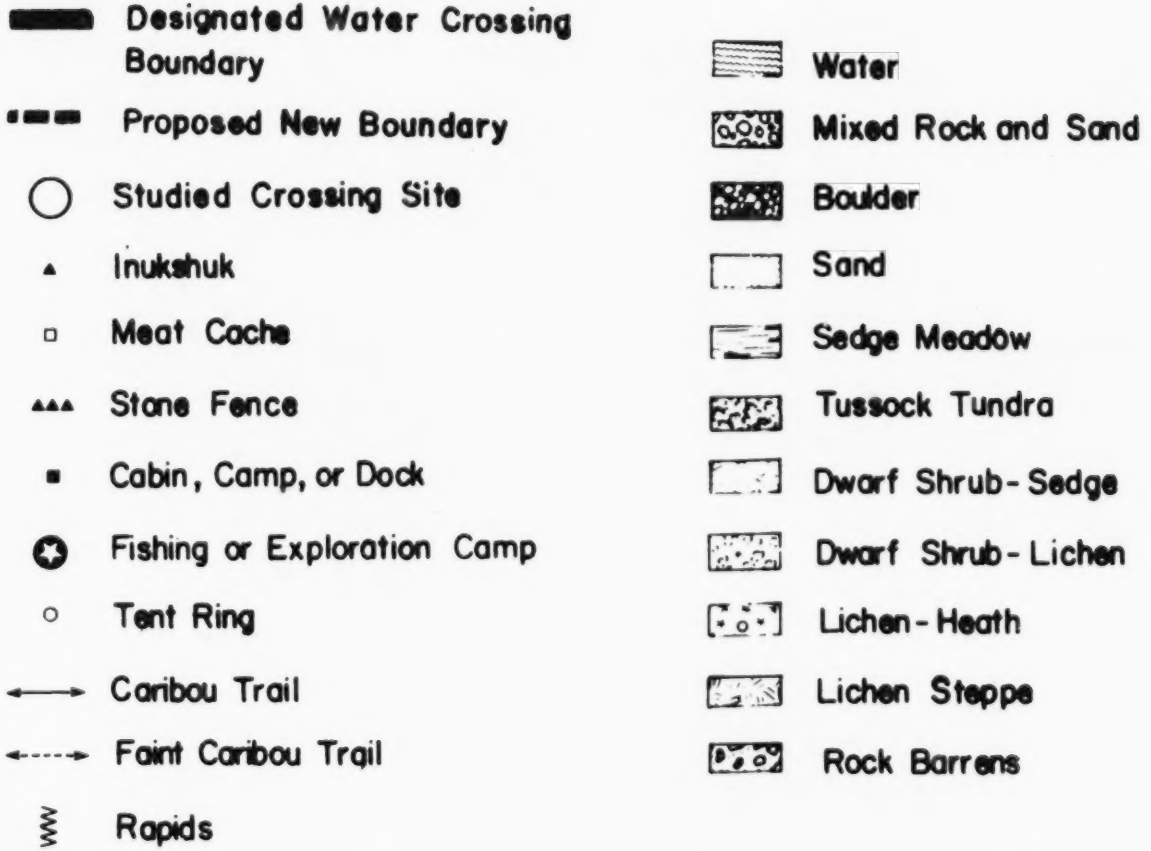
TO HAVE MAILING ADDRESS CHANGED, WRITE TO CANADIAN AIR TRANSPORTATION ADMINISTRATION, SLPP, OTTAWA, ONT., K1A 0N8. TO FACILITATE THIS SERVICE ENCLOSE THAT PORTION OF THE ENVELOPE BEARING YOUR NAME IN WHICH THIS CIRCULAR WAS RECEIVED. NOTE CETTE INFORMATION EST AUSSI DISPONIBLE DANS L'AUTRE LANGUE OFFICIEL. (FULL POSTAGE REQUIRED)

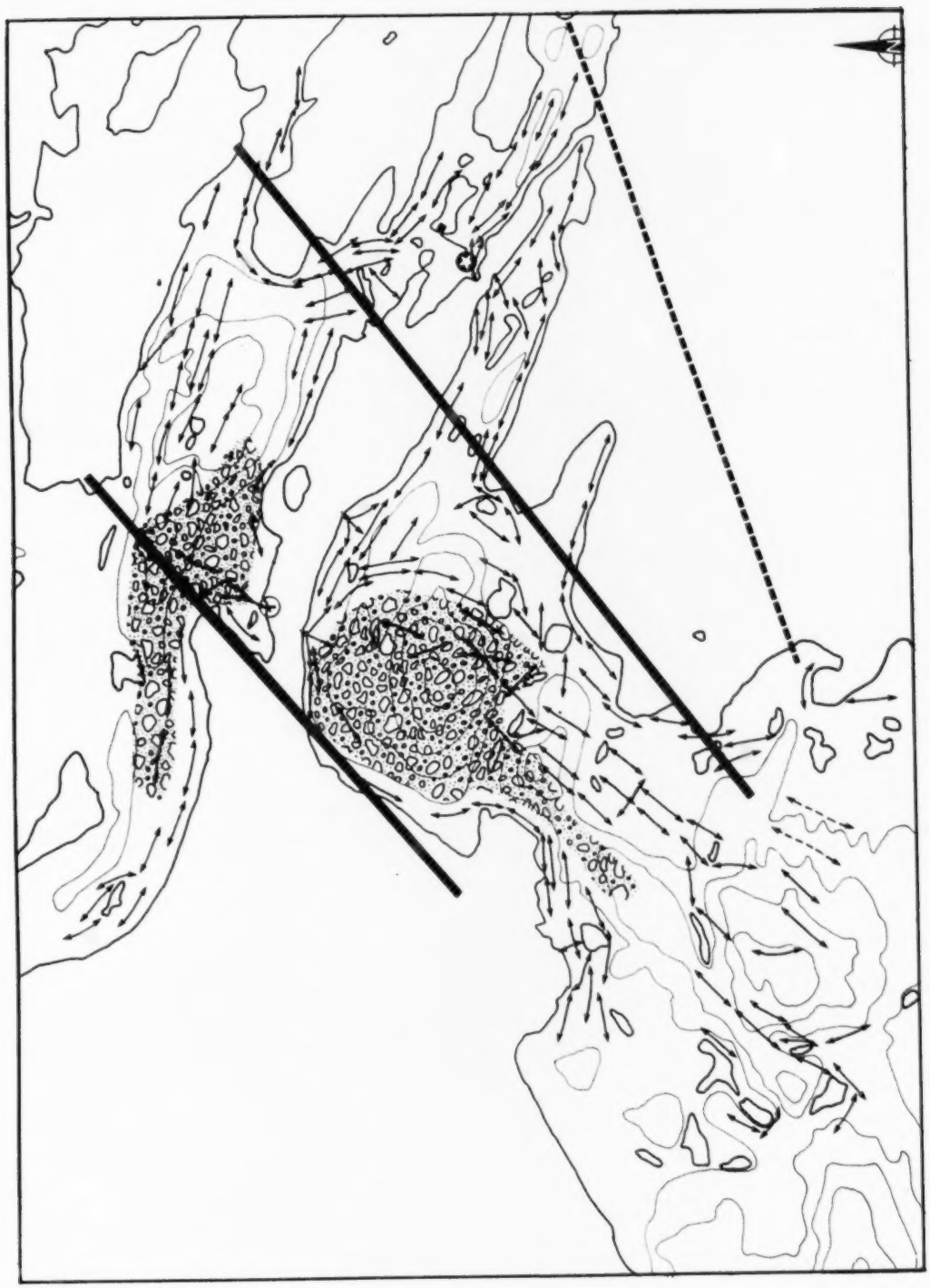
CARIBOU CALVING AREAS



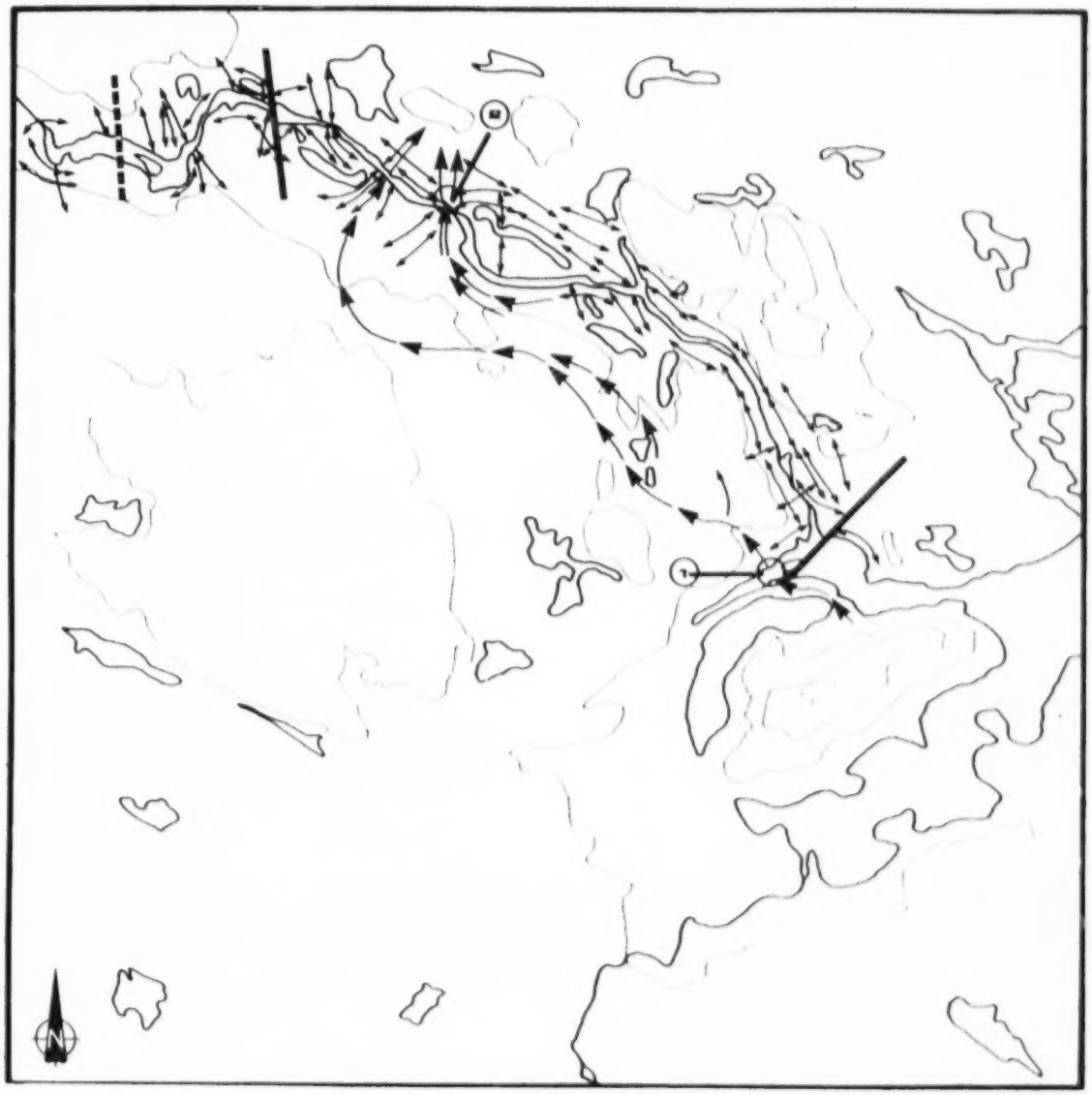
Appendix J. Boundary Realignments for Water Crossings 3, 4, 5, 12, 13, 14, 17, 18, 21, 22, 23, and 24. Figures and legend adapted from Williams and Gunn (1982).

Legend for Appendix J , Figures 1-12.

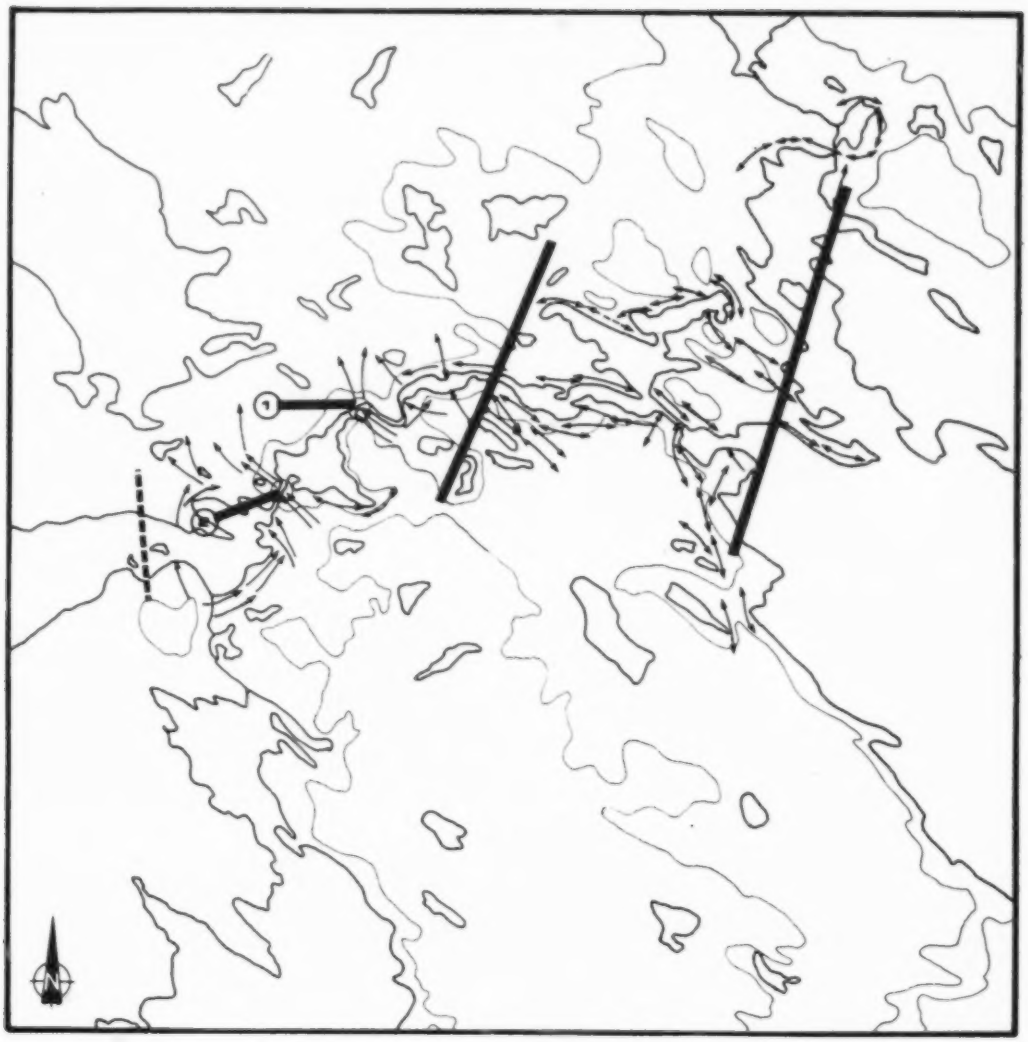




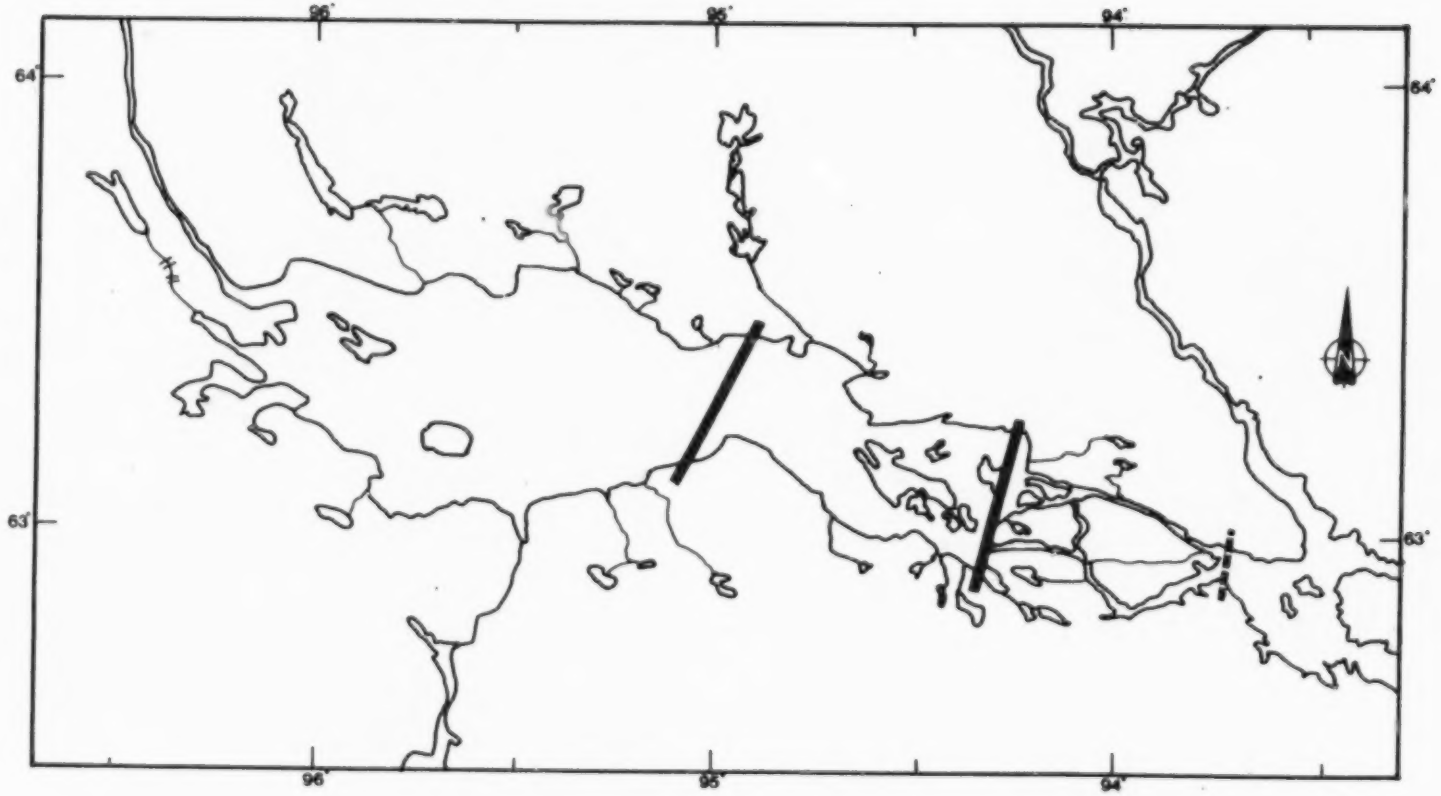
Appendix J, Figure 1. Water crossing No. 3, Henik Lakes Narrows, $61^{o}44'N$, $97^{o}30'W$.



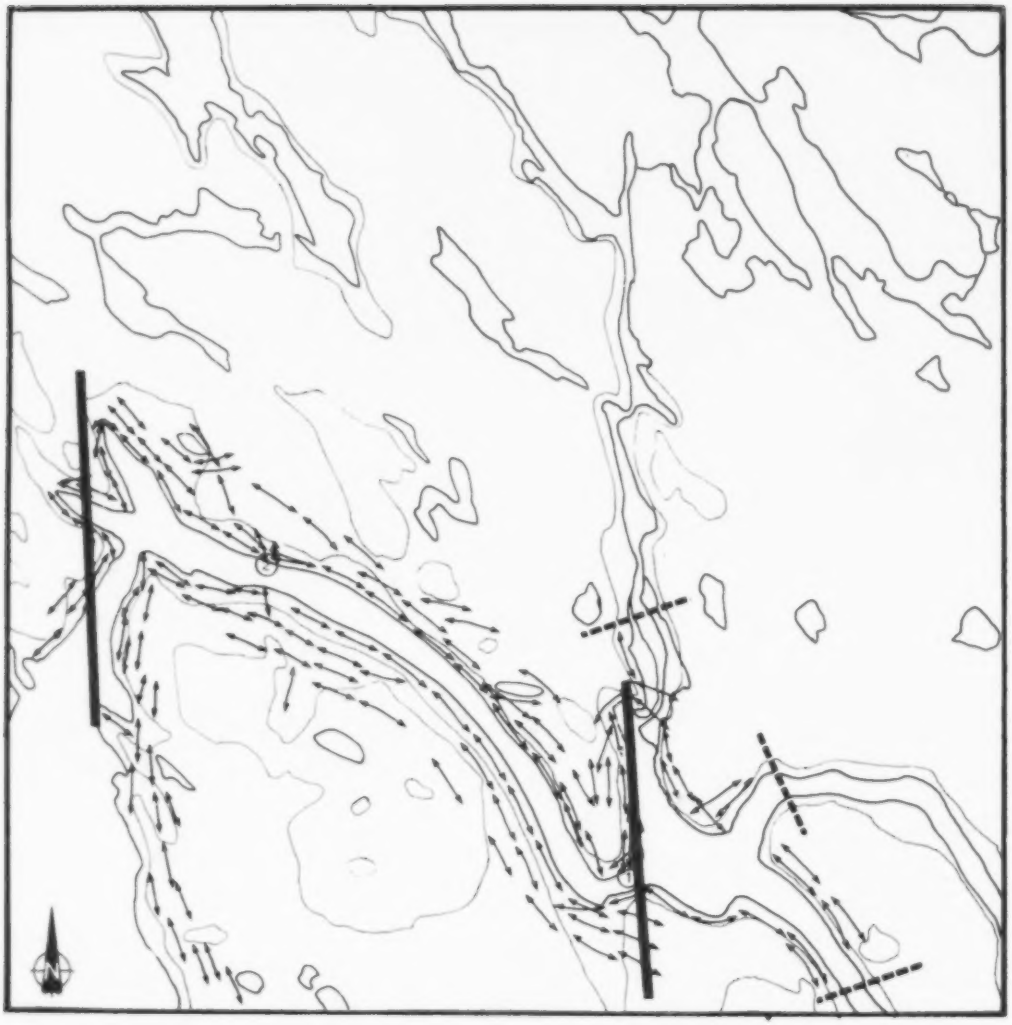
Appendix J, Figure 2. Water crossing No. 4, Northwest Kinga Lake, 61°54'N, 96°48'W.



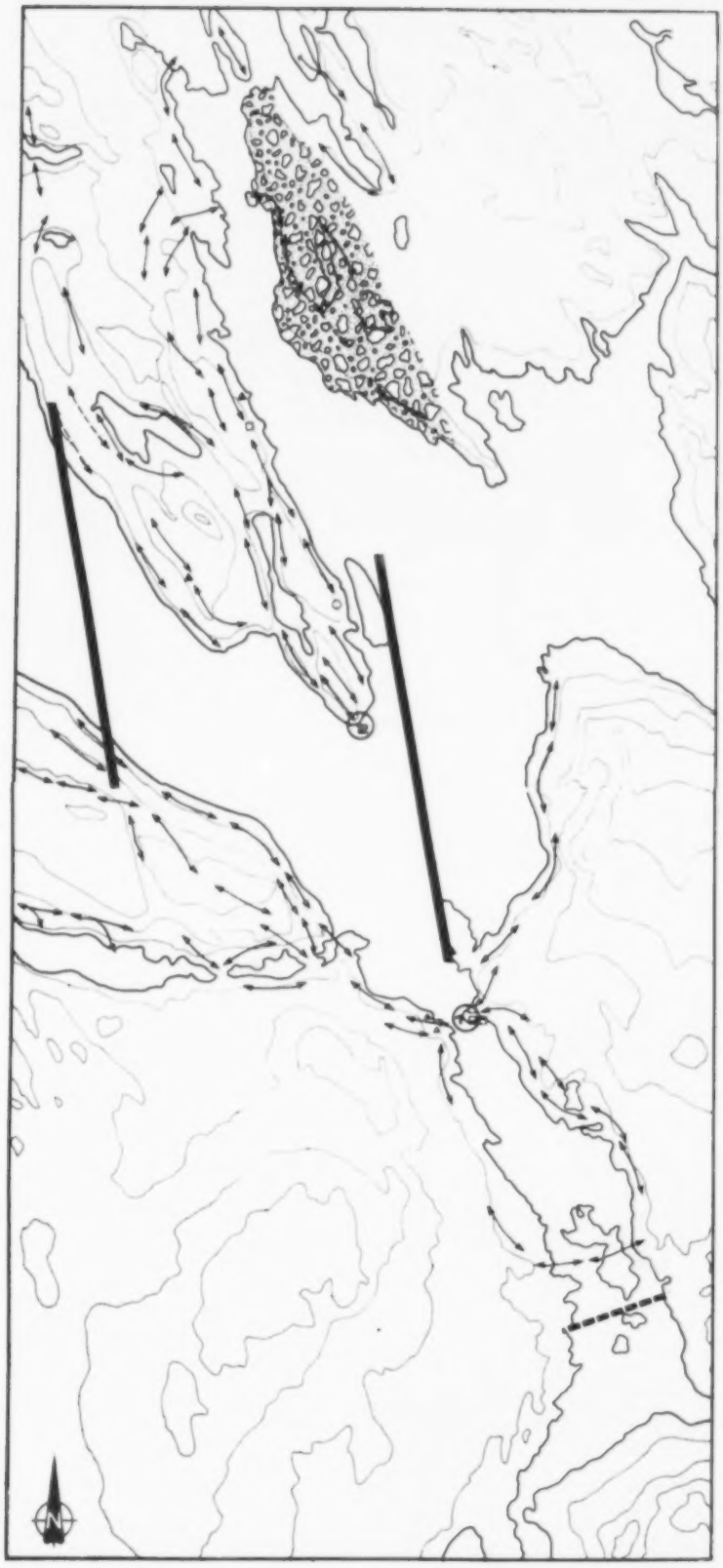
Appendix J , Figure 3. Water crossing No. 5, Maguse River, 61°56'N, 96°29'W.



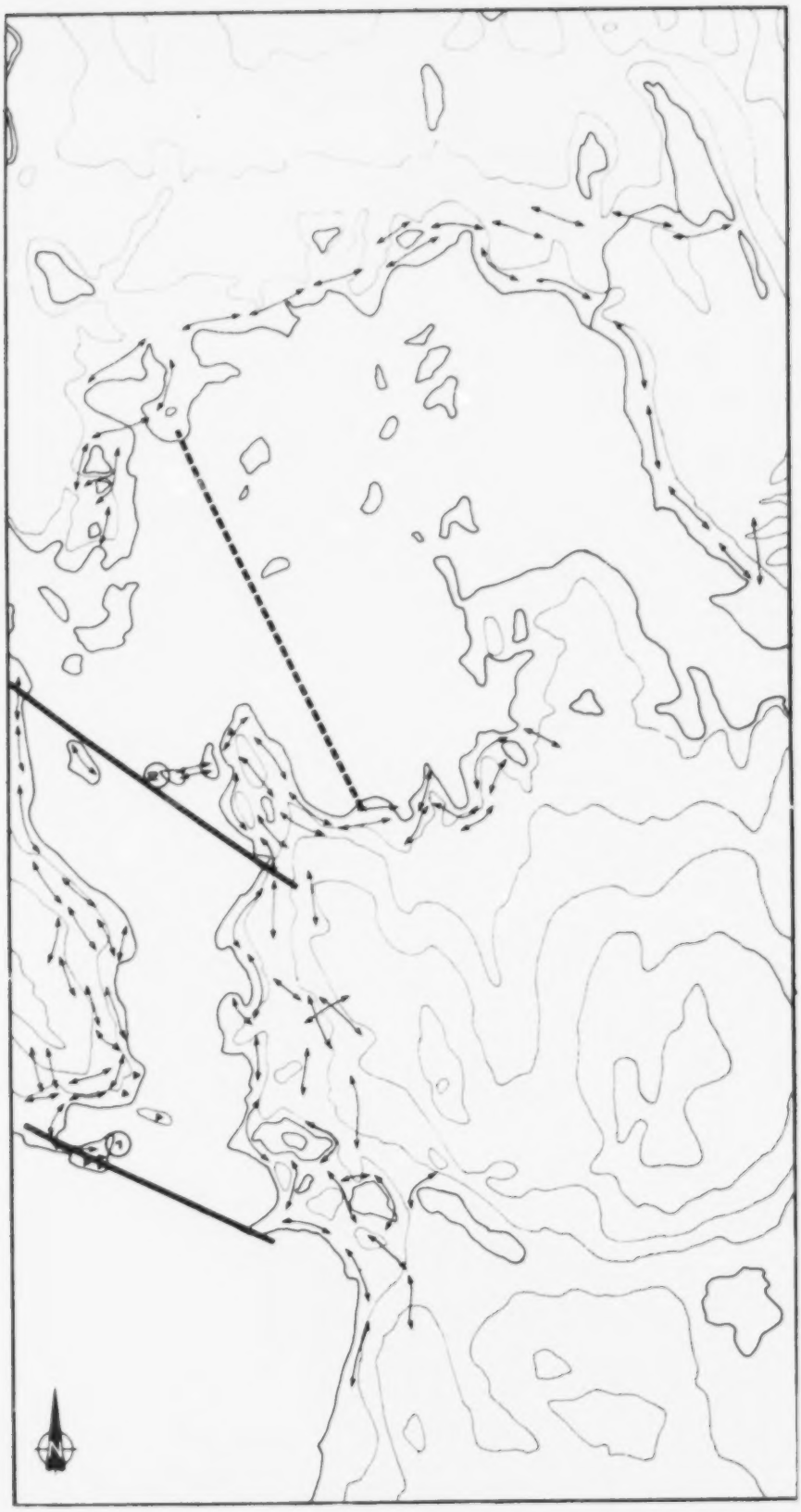
Appendix J , Figure 4. Water crossing No. 12, Christopher-Bowell Islands, 64°07'N, 94°34'W.



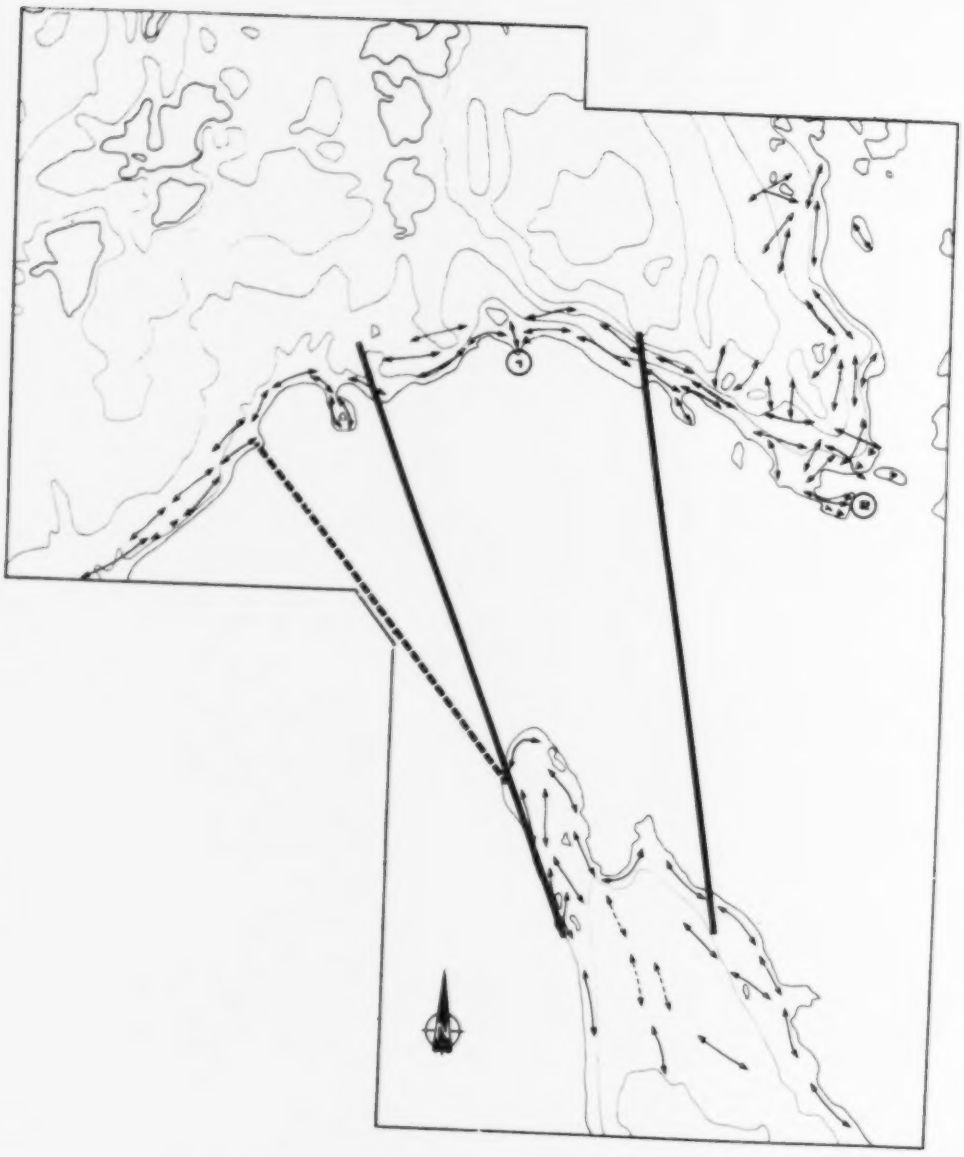
Appendix J, Figure 5. Water crossing No. 13, Thelon River, 64°47'N, 96°56'W.



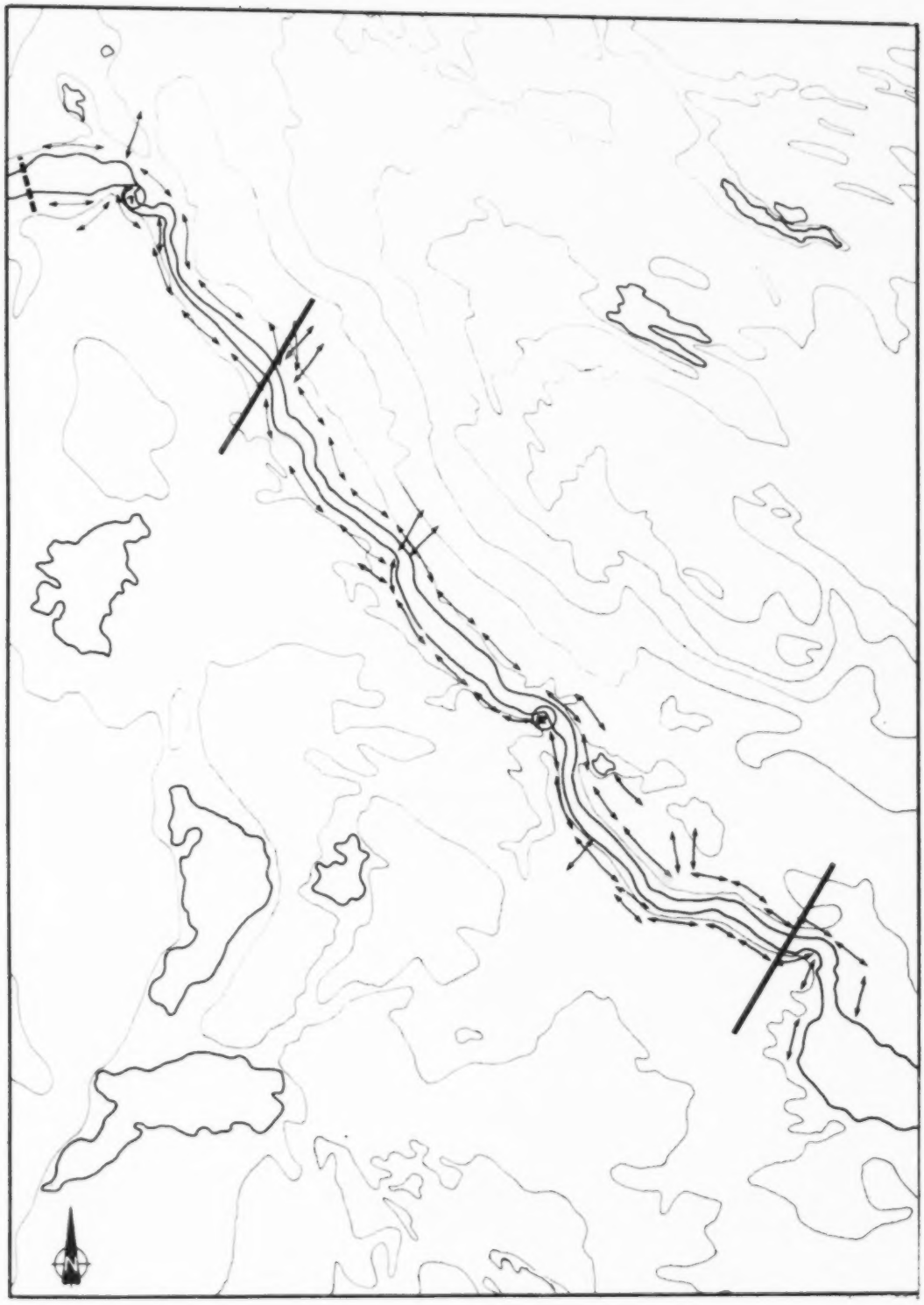
Appendix J , Figure 6. Water crossing No. 14, East Shultz Lake, 64°40'N, 97°10'W.



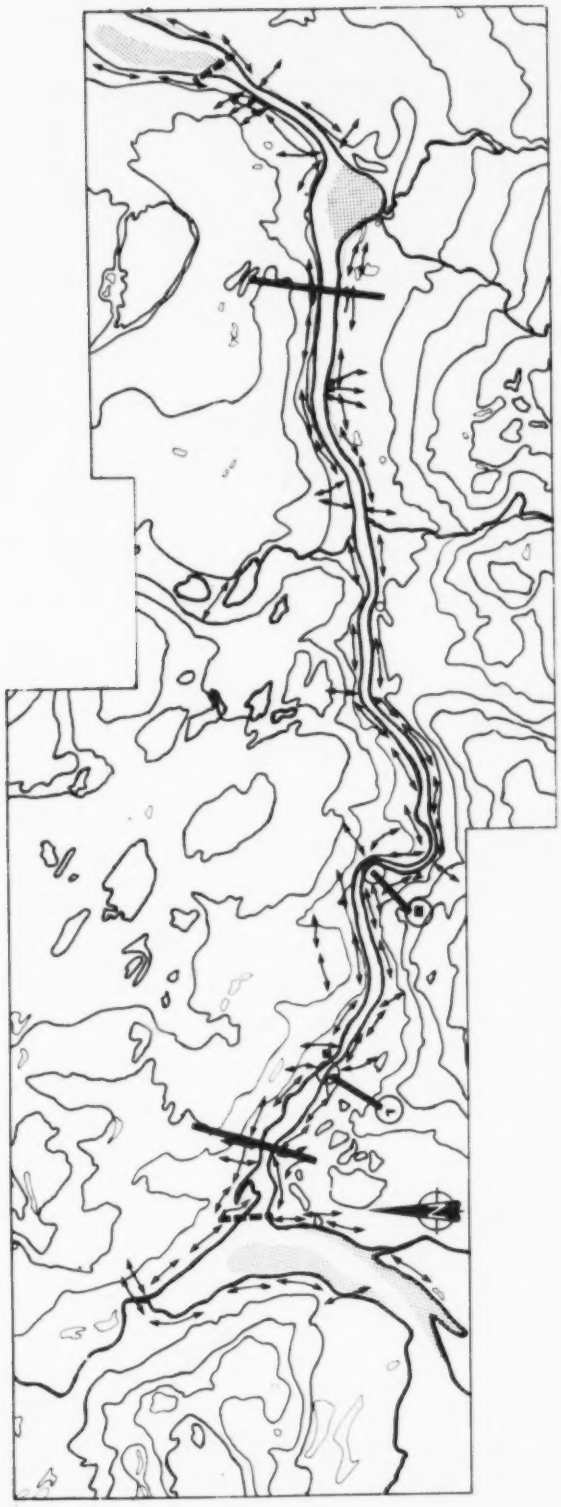
Appendix J , Figure 7. Water crossing No. 17, East Aberdeen Lake, 64°37'N, 98°25'W.



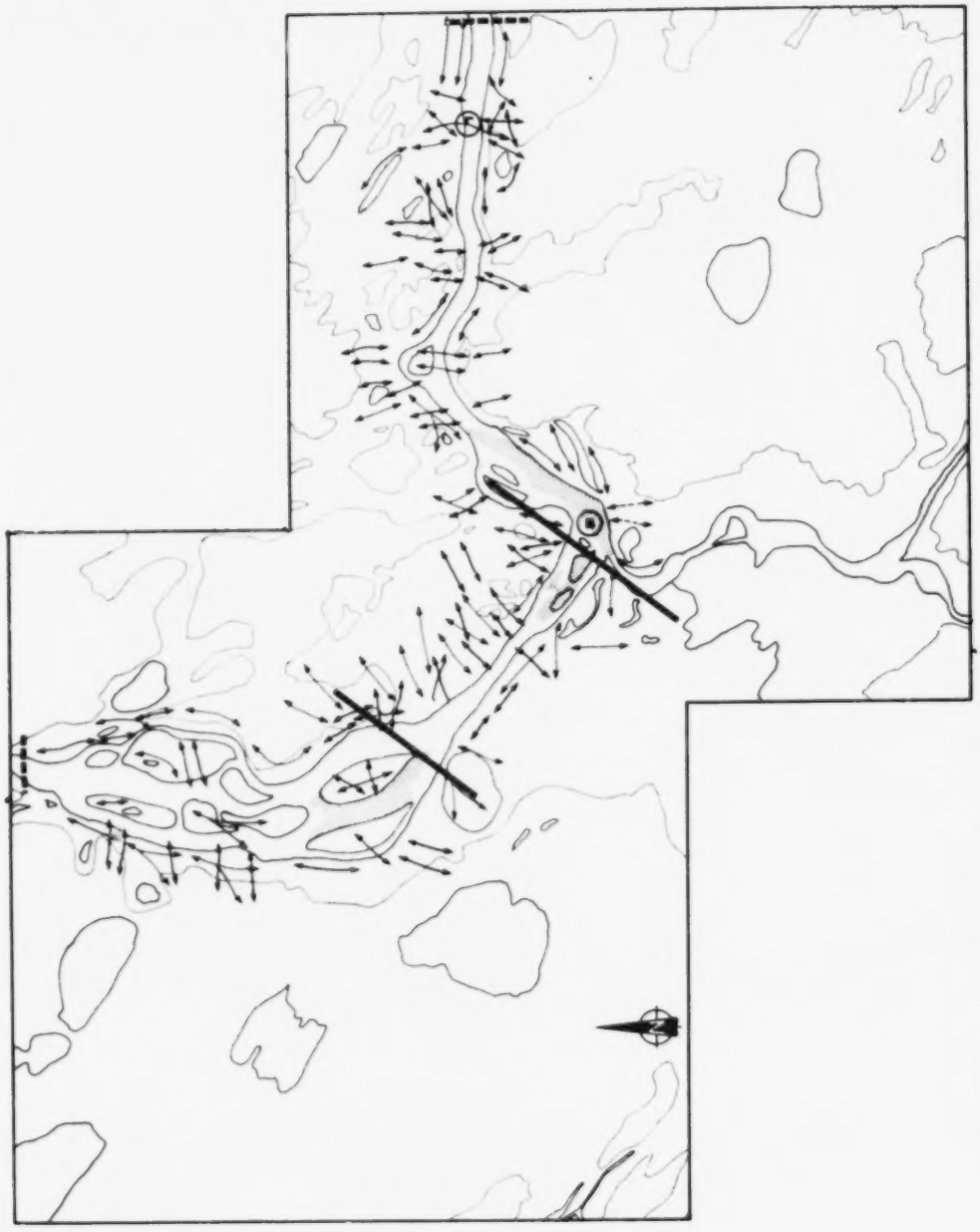
Appendix J, Figure 8. Water crossing No. 18, East Central Aberdeen Lake, 64°34'N, 98°33'W.



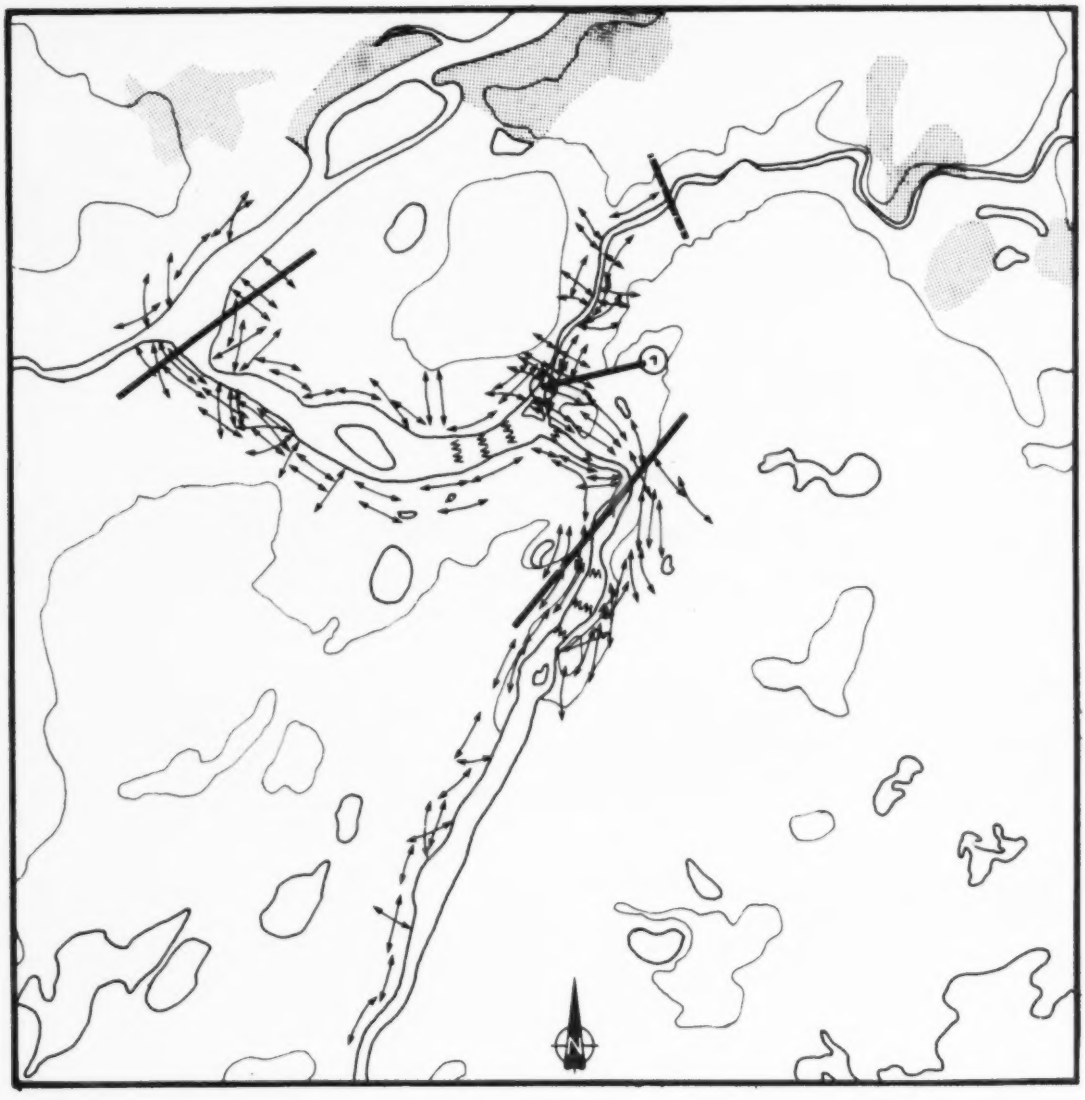
Appendix J , Figure 9. Water crossing No. 21, Dubwant River, 64°24'N, 99°53'W.



Appendix J, Figure 10. Water crossing No. 22, East Thelon Sanctuary, 64°33'N, 101°10'W.



Appendix J , Figure 11. Water crossing No. 23, Centre Thelon Sanctuary, $64^{o}13'N$, $102^{o}38'W$.



Appendix J , Figure 12. Water crossing No. 24, West Thelon Sanctuary, 64°37'N, 104°30'W.